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Costs: For Better or For Worse

IF A manufacturer is one of those fussy mid-Victorian individuals who refuse to accept orders below cost, it would seem rather important that he know what his cost is.

If, on the other hand, he belongs to the group of serious thinkers who believe it is cheaper to accept orders below cost than to curtail, he might be expected to be mildly interested in the extent of the loss involved in accepting those orders.

Moral: Whether you are making or losing money, accurate cost methods are handy things to have around the mill.

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This moral is drawn in the letter addressed to executives of fine goods mills by the Cost Section of The Cotton-Textile Institute, and published elsewhere in this issue. We regard it as a thoroughly sound statement of principles.

Of course, it may alarm and disconcert some members of the industry to learn that the cost methods employed in 43% of the plants in that group are open to criticism. However, the alarm will be less harmful than the results of that 43%.

For cost determination may certainly be termed a social function, in that the methods used in one plant affect all other plants in the group. This effect is a direct one. Naming of uneconomic prices by one mill does not merely mean a loss to that company; it helps to set a market level which will eventually take money out of the pocket of every other maker of a competitive product.

Nor do we believe that most uneconomic prices are due to intent—but rather to ignorance.

Unfortunately the effect is the same.

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The Cost Section of the Institute leaned over backward in its attempt to avoid even an appearance of over-statement. It permitted the assumption of the contention that under present market conditions mills must accept orders at whatever the market affords—and that consequently soundness of cost determination loses some of its normal importance.

There is another side to this. When resistance to buying pressure has weakened under market demoralization, the application of further pressure due to ignorant naming of prices has more than its normal effect. Conversely, as the Institute's letter points out, knowledge of how much mills might expect to lose on each order "would serve as a deterrent to the acceptance of many such orders and would have at least a psychological tendency to stiffen resistance against further price reduction." Nor is the potential effect of this knowledge purely a defensive one. "Again at times," states the Institute, "it should indicate to the management occasions when possible economies and minor changes in specifications would lead to profits on certain orders which might otherwise be sold at a loss."

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A few years ago, editorial discussion of most textile problems was largely an academic pursuit. It was necessary to write abstractly about what *might* be done in exports, in research, in cost determination, and in other fundamental fields.

Today, with a new spirit and a new activity in the industry, it is possible to write in terms of what *is* being done.

So, in costs, we can point out to our readers not only the sound theory in the Institute's letter, but the definite means for translating that theory into action, made available by the Institute's Cost Section, with its headquarters staff and field agents at the disposal of the mills.

It is significant to note that this letter, with its offer of service, is directed to *all* mills, whether members or non-members. This, we are sure, is based on the thought, advanced above, that each individual manufacturer's cost system affects not only his own profit or loss, but the profit or loss of all his competitors. It binds him to his industry—for better or for worse.

The Week in Textiles

Outlook . . .

WITH STEADIER raw cotton, buyers showed more interest in both goods and yarns but only bargain prices draw orders. Sellers see little hope for better margins though volume of business should improve during next few weeks. . . . . Wool goods field spotty with women's wear worsteds taking lion's share of business. Mills are setting production pace to the run of orders and their inventories are said to be lower than ever before. As a result, fair stability is foreseen. . . . . Further slight improvement is recorded in knit goods lines. Lower retail prices on rayon underwear as a result of recent reductions on the yarn are expected to increase turnover in this branch. Half hose in demand, especially the better grades. . . . . Raw silk was a bit firmer and with this turn the outlook for users improved. Thrown silk quiet, spun silk steady and broadsilk demand fair.

Advance 90% of Cotton Value . . .

WITH THE assistance of the Federal Farm Board, and acting through the various state cooperatives, the American Cotton Cooperative Association has announced that approximately 90% of the value of the cotton where located will be advanced for the benefit of seasonal pool members. Advance will be 10% less on optional pool cotton. . . . . Both the Farm Board and the Association believe that fixed advances would be unwise so the advance will be adjusted to market fluctuations. . . . . The cooperatives hope that the move will allay distressed conditions and allow the majority of the farmers to secure the benefit of any future price gain.

Spindle Activity Drops . . .

AGAINST AN average monthly operation of 95% for the years 1921 through 1929, activity of cotton spindles for July, on basis of single shift capacity, dropped to 67%, according to Department of Commerce. June showed 76% and May 83%. Only 26,464,444 of the 34,030,706 spindles in place were operated at some time during the month. . . . . Reflecting the curtailment, domestic cotton consumption dropped to 378,835 bales for July, compared with 547,165 for the same month last year. For the twelve months ended July 31, consumption was 6,113,932 bales against 7,091,065 for the previous twelve months. Total stocks are placed at 4,530,583 bales for July 31, 1930, representing an increase of 2,218,595 from 1929.

Knitter Guarantees Prices . . .

IN A LETTER mailed to its customers the Arcadia Knitting Mills, Allentown, Pa., states that business is lagging because of price uncertainty and, to overcome the difficulty, the company will guarantee the price on its knit rayon fabrics until the end of the year. Details of the guarantee are somewhat hazy, but, Arcadia being one of the largest users of rayon, the move has created considerable speculation. . . . . Several large rayon producers have denied that they will adopt a similar policy to back up the knitter, but if many rayon users believe it expedient to follow Arcadia's lead there is no question but that considerable pressure will be brought to bear on the yarn producers.

The Business Outlook

"After about two week's delay due to the drouth scare, signals of beginning of definite business recovery, which in June we said would appear early in August, begin to flicker faintly amid the encircling gloom. Our index, turning slowly from the low level reached during the first two weeks of the month, has risen to 89% of normal as compared with 87.2% last week and 111.1% last year . . . . Nearly every important weekly indicator has turned upward this week, while a year ago almost all were sliding steadily down. Steel activity, coal production, and carloadings are up more than seasonally; electric power output is increasing slowly; building is resisting seasonal decline; general trade volume is rising nearer to normal; and commodity prices have ceased their rapid decline . . . . Whether this upturn is to carry us beyond the seasonal hump during September and bring business back to normal by end of October depends now on two things only: Whether Federal Reserve will keep the credit clock wound up by buying bills and securities steadily, and whether business brains will jump energetically into the job after Labor Day." ***—The Business Week***

New Hosiery Group to Function Soon . . .

ACCORDING TO G. C. Aberle, H. C. Aberle Co., Philadelphia, full-fashioned hosiery manufacturer, and member of the organization committee, plans for formation of Full-Fashioned Hosiery Exchange are progressing satisfactorily and by the end of this year the group will be in active operation under the guidance of Julian Armstrong, organizer of trade bodies of this type. . . . . Plans provide for setting up machinery for obtaining and distributing statistical information.

Notes on Textiles . . .

THOSE WHO spurn the tablecloth will have difficulty in emulating the captains of industry if a recent episode in London sets a precedent. . . . . It seems that an important industrial conference was held during luncheon in a restaurant, with the tablecloth being subjected to the usual scribbling. At the conclusion of the meal the chairman called the manager, bought the tablecloth and placed it carefully in a safe. . . . . The scene shifts to Paris where the chairman reported to the principals. Out came the

tablecloth, signed by the London conferes, and containing, in the scribbled notes and comments, a narrative of thought processes during the conference.

Signs of Improvement . . .

A MORE OPTIMISTIC attitude was encountered in the South by a TEXTILE WORLD editor this week. Reports of improved interest in both cotton yarns and goods, while not unanimous were sufficiently general to reflect a trend. . . . . Incidentally he also found widespread agreement with the belief that any general wage reduction was inadvisable.

Something in a Name . . .

FEDERAL TRADE COMMISSION continues in its efforts to keep the boys in line. Stipulation agreements have been signed by several manufacturers. One agrees to stop labeling his shirts "broadcloth" unless the fabric is actually broadcloth as understood by the trade and public. . . . . A manufacturer of linings agrees not to display in advertisements combinations of words containing "satin" and "serge" which would lead the buyer to believe the material to made in whole or in part of silk or wool when such was not the case. . . . . And then there is the manufacturer of blouses who agrees not to label them "English broadcloth" when, in fact, they are not imported from England nor, for that matter, broadcloth.

Inaugurates Bulletin . . .

CONTINUOUS AMAZEMENT at the economic depression and endless discussion of the situation in the textile industry are but a reiteration of tiresome and spiritless facts, according to the first issue of a series of bulletins inaugurated by The Association of Cotton Textile Merchants of New York. With so much pessimism it is difficult to hear the voice of constructive effort, the bulletin points out, and states that the continuous changes which must be made in modernizing machinery and methods should be a source of satisfaction rather than regret denoting, as they do, evolution. . . . . The bulletin will be issued at frequent intervals. It is designed to serve as an additional means of producing real harmony, to discuss progress of problems handled by the association, and to present news and views on pertinent topics.

Sleepers Turn Testers . . .

WEARABILITY OF wool blankets is to be tested in a cooperative project gotten under way by the Bureaus of Home Economics and Animal Industry. Promise is to be checked against performance of a number of blankets woven under controlled conditions, of fine and medium wools of known quality. Sheep from the U. S. Sheep Experiment Station at Dubois, Idaho, furnished the clip. . . . . The white "institution" type blanket was chosen. After physical tests and analyses have been run on the blankets, they will be turned over to a hospital for service wear.

When Is Starch? . . .

WHY DOES America import white potato starch from Germany for use in the textile industry, and at the same time export its own corn starch to German textile mills? . . . . Government scientists are curious to know the reason, and, more than that, are doing something to find out. A laboratory for the study of the utilization of starch in textiles has been opened, with the cooperation of the Bureau of Standards, by the Alabama Polytechnic Institute within the last fortnight. . . . . Reluctance of American foremen to substitute corn starch for imported potato and tapioca starches is due, scientists believe, to a lack of knowledge of the properties of starch and the correct processing peculiar to each kind. A considerable economy over the whole industry might be effected by the certain use of the right starch in the right place.

Again the Need for Standards

THE New York Cotton Exchange has voted to inaugurate trading in wool top futures, but the industry still exhibits signs of apathy. Opinion—where any has been formulated in the industry—is generally that the move will be of no practical value. Good, however, should come of it ultimately.

A prime criticism is that there is no real standard upon which to base trading. What is 64s tops to one man is seldom precisely 64s tops to another. It is at present impossible to visualize 64s tops as an exact commodity.

But—this criticism is an indictment of the industry itself for not having real standards, rather than an objection to a futures market. Every purchaser, from raw wool down the line, suffers from inability to purchase according to recognized standards. Each quotation must be individually investigated to ascertain the real quality of the material offered.

Fortunately, the Wool Institute and other agencies have already made progress in standardizing grades of wool, tops and yarns. Unfortunately, the futures market will be in operation before standardization principles have been fully clarified, but the futures market—and therein lies one of its values—should definitely stimulate completion of the whole standardization program.

It may be some years before the industry will take full advantage of hedging facilities. In the meantime it is to be hoped that speculative interests will not kill the market prematurely, before the industry itself is in a position to make a real test of the plan.

Rationalization *and the* Textile Industry

By William King

WE ARE at present passing through an industrial revolution similar to the transition from water power to steam and it is difficult to surmise when it will end. One can but hazard a guess as to the ultimate constitution of industry, but whatever its future may be we must realize the significance of the changes that have taken place during the last decade and the present mobile condition of industrial units.

Perhaps the greatest factor in recent industrial development is the application of the results of scientific research in production methods, both by industrial and technical bodies, and by Government organizations. Science and industry have become more closely allied during the last 25 years than ever before in the history of civilization, and it has been due, very largely, to intensive competition in world and domestic markets. While competition has a tendency to strengthen the technical organization of the average unit competing against other units within the same industry, it can result in price-cutting wars that nullify the possibilities of profitable trading to participating concerns. From an economic standpoint, selling below the cost of production plus cost of raw material is justified only when there is definite proof that this policy will bring, in the near future, adequate return of profits to counteract the departure from orthodox trading principles.

What is *rationalization?* The growing use of this term, as applied to industry, has confused many observers. It will seem less formidable after a reading of the accompanying article. Rationalization is, in fact, just what it implies. The author outlines, broadly, its application to the textile industry.—*Editor.*

Amalgamations and Mergers

Considering the last decade, there has been in almost every industry a general trend toward mergers and amalgamations, with the object of preventing price cutting and dissipation of capital consequent on fierce competition within the individual industries.

That the tendency toward merging of industrial units is justified cannot be denied. In theory, and in accordance with old-fashioned practice, bankruptcy and liquidation would solve the problem of surplus productive capacity and incompetent management, but in practice, and particularly in the United Kingdom, it does not do so. Only the very small industrial units are affected, while the greater concerns have carried on, lost several times the amount of capital, and have been merely reconstructed. Among competitors of great resources, both in the form of financial reserves and borrowed capital, who are nearly equal in strength, the entire industry may be very seriously injured before enough are forced out of business to affect materially the severity of the competition.

Amalgamations have taken various forms both as vertical and horizontal combines. A true vertical combine applied to the cotton industry would comprise spinning, weaving, finishing, and merchandising, with centralized agencies for the purchase of raw material and supplies and the sale of entire production. A horizontal combine would embrace, in the same industry, a number of spinning mills, or weaving mills, or finishing plants, or even a number of merchandising houses. Whereas the former would deal in textiles from the purchase of raw material to marketing the finished goods, the latter would be concerned with efficient functioning of one section of the industry, whichever section chosen being organized to produce on bulk lines. Before considering the economics of amalgamations and mergers of textile units it will be necessary to examine the term rationalization.

Rationalization

To contemplate the rationalization of an industry does not imply a presupposition that the industry is on its last legs; it is rather a matter of bringing industry into line with present scientific technique and development, and so far as possible foresee future development along these lines. One is reminded of the classic story of the two brothers told by Emeritus Professor Cannan in a recent economic survey:

"Well, John, how's business?"

"Very bad, James; very bad indeed. We're losing money, James."

"What? John, you don't mean to say you're not making 10%?"

"Oh, James! It's not as bad as that!"

A dictionary definition of rationalization is, "to rely solely on reason for guidance," which implies the application of common sense to industrial problems. There may be one definition of the term common sense, but the application of it reveals many different interpretations.

It is doubtful if a more comprehensive definition of rationalization has been given than that supplied by Lord Melchett, the moving spirit and creator of Imperial Chemical Industries Ltd. He writes:

"Basically rationalization is simply the rational control of industry to insure that as far as possible you do not produce more than your market can absorb. . . . It means the closing down of obsolete plant and machinery and of unprofitable mines and factories and the allocation of production to those mines and factories most favorably situated and equipped.

"It involves the use of every labor-saving and every fuel and power-saving device which, together with the elimina-

tion of every unnecessary link in the chain of distribution, results in a vital saving in the ratio of costs to output. It means concentration on scientific research, the employment of the latest plant and inventions, and the scrapping of obsolete equipment. In the purchasing of raw materials, in transport, and in the chain of distribution and of merchanting abroad it means unification and centralization, with all the corresponding economies and enhanced efficiency. . . ."

From this definition it is obvious that it implies the application of the most economic means for achieving industrial ends; the control of raw material; a marshaling of financial, technical, and commercial forces of an industry to secure efficiency in manufacture and economy in production and selling costs. It does not always mean a displacement of labor. The German dye trust increased the number of workers in its chemical works by 36% from January, 1925, to the end of December, 1928, and this illustrates the benefits of rationalization wisely applied. It does generally mean a weeding out of inefficient managers, leaving an executive officer of the highest skill, who will so select his subordinates, so direct their work, and so infuse into them his own spirit, that, under careful inspection, comparatively little will be lost from his inability to be present personally in each separate establishment. In the larger combinations frequent reports, often daily, are made from each concern, in this way to remedy any slight defects in one establishment and to bring all up to the highest possible level of productive capacity.

"Brains that have rationalized other industries have a counterpart in our own powerful textile organizations."

Rationalization Adapted to Textiles

The textile industry, perhaps because of its peculiar internal constitution, has not been in the fore in regard to mergers, combinations, cartels, and the like, as has been the case in coal, steel, dyeing, chemical, and many other industries. It is an industry divided into watertight compartments, and these compartments in an industry do not always possess the advantages that are apparent in those of a sea-going vessel—rather the reverse.

While the industry is far superior in internal organization to foreign textile industries, and production is to a certain extent along mass lines, it is lacking in those characteristics of an industry that make it equal in efficiency, if not superior, to companion industries. Rationalization of hundreds of scattered units within one industry is no easy matter, and perhaps that is why steps have not been taken to bring it about. That there is need for certain measures will not be denied. It must be always so. The very essence of industrial construction is its mobility; change is as inevitable as it is necessary. Lack of recognition of this factor is one of the main reasons why the textile industry in England has sunk to its present condition.

Presuming that the basic law of rationalization is to insure that you do not produce more than your market can absorb, one is justified in asking how to ascertain the complete market absorption. One branch of industrial research is concerned with creating new markets, and this work must go on; therefore the test really becomes one in which yarn and cloth prices are the obvious criterion of consumer capacity. If there is a commensurate return on invested capital for efficient concerns, the market is technically sound. Probably the two chief reasons for price deflation are overproduction and the forced selling of regular production at uneconomic levels to obtain liquid capital. It has been demonstrated that the latter policy can reduce prices to a grotesque level without bankruptcy intervening, until the industry is in a thoroughly hopeless position. While one is extremely reluctant to suggest conservatism in banking methods, the refusal of credit to concerns whose financial construction is fundamentally weak would do much to expedite the exit of these units from industry.

If one section of an industry is operating on a totally different basis from another in regard to labor hours, rates, taxation, and general conditions, due to localization, then the whole tone of the market may be weakened by illogical price wars. When the majority of the trade is export and there are many competitors in the market, price control is not feasible, and is equivalent to deliberate abstention from export markets, as was proved in the case of the English Cotton Yarn Association which from 1926 to 1929 tried to fix yarn prices but was unsuccessful and compelled to liquidate.

What is known as the vertical combine is most applicable because it enables adequate control from raw material to finished product, which in one case may be cloth, or for export purposes yarns. To be truly rational it must be on as large a scale as possible; on a small scale it is not economic as is exemplified in the Canadian industry where there are several instances of one small company having carding, spinning, weaving, and special finishing facilities. Each department is comparatively small but requires one overseer and second hand. If the size of each department were increased 400%, the present overseeing would be ample. Several types of yarns and constructions of cloths are made requiring elaborate finishing machinery which is not always fully employed. There is, too, the tremendous amount of time lost in changing from one product to another, and in such cases there is only a remote possibility of mass production.

The smallest section of a rationalized industry that is capable of functioning economically is one that is large enough to produce on mass production lines; only then can desirable economies be effected. The bulk buying of cotton will in itself result in considerable savings; this has been proved by the experience of the Japanese textile combines and the Lancashire Cotton Corp., and the principle applies in the bulk purchase of supplies. Up to the merchandising of product there is but one operating profit whereas in many instances today there are often three or four.

There is equal scope for development in weaving, and it is well known that the multiple system cannot function truly except in mass production work. The economies in bulk dyeing and finishing are obvious, as also the advantages of centralized merchandising.

An industry that is composed of powerful combines can obey, without impoverishment, the basic law of not to produce more than the market can absorb; can, by means of its great negotiating power, bring about universal hours of labor; can maintain prices at a remunerative level; and is in a sound position to explore the possibilities of export markets.

The brains that have rationalized other industries have a counterpart in our own powerful textile organizations.

Fig. 1. Heavy stand and close spacing of plants in the row, typical of West Texas fields

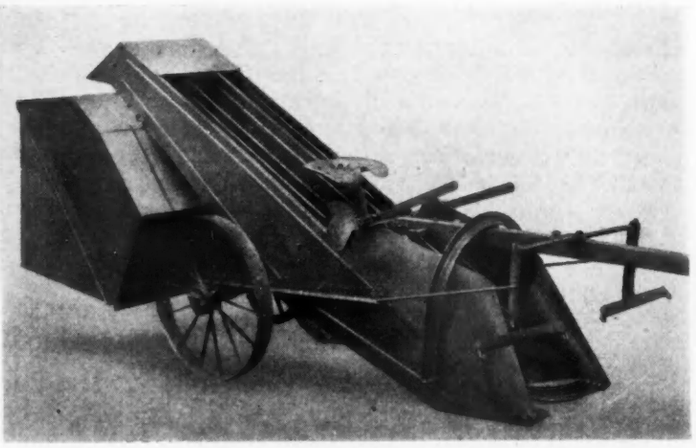

Fig. 2. Cotton harvester

Hand-Picked Versus Mechanically Harvested

COTTON

By Carl D. Brandt

DUE TO the lack of a plentiful supply of cheap labor in West Texas, some mechanical means of harvesting cotton grown in that section is desirable. Mr. Brandt, who is head of the Department of Textile Engineering, Texas Technological College, gives in this article results of a test made to determine the comparative spinning qualities of hand-picked and machine-harvested cotton.

WEST TEXAS plains country is a cotton-producing section with certain natural characteristics which make it ideal for the use of various mechanical farm implements. The land is level, free of stones and stumps; it is farmed in large sections, and one farmer may plant a couple of hundred acres to cotton. In the eastern part of the cotton-growing country, Georgia for example, a farmer is doing well if he can plant and care for 50 acres. Of course, the yield per acre is not as great on the Western plains, but the final cost per pound of lint produced is less. A cotton field typical of West Texas is shown in picture Fig. 1.

The problem of gathering the cotton in the fall presents a number of difficulties. Cheap labor is none too plentiful; and when such large acreages require picking at about the same time, some mechanical means must be devised to do this work. Then, too, the type of plant in this section differs from that in the East. The plants are much smaller, and as a rule they are allowed to grow closer together, as the farmer does not "chop" or thin out his stand after planting. These low plants make the cotton more difficult to pick since it is a back-breaking proposition to remain doubled up all day as one stoops to gather the bolls. Many cotton pickers creep along on their knees, dragging long sacks hitched to their shoulders. This is the method used in the past, but it is a slow process.

Mechanical Harvester

Mechanical pickers which simulate picking by hand have been tried, but to my mind they do not offer a solution to the problems of this section, as the production is not great enough. Use of the mechanical harvester which strips off everything on the stalk is by far the most productive and rapid method. The problem which must be overcome in a machine of this type is to so construct it that it will not injure the staple and at

the same time will not allow too much leaf and trash to pass on with the fiber.

The following test, which was conducted by the Textile Department, of the Texas Technological College, was made to determine to what extent mechanical harvesting affected the spinning qualities of the cotton so gathered: The harvester used is marketed by one of the leading manufacturers of farm implements. The mechanical construction of the machine is shown in Fig. 2.

In gathering cotton from the field, every second row of cotton was harvested by machine, while the rows between were hand-picked. Any chance of getting a difference in staple in the two lots was thereby eliminated. The grade and staple of the sample lots tested were rather poor, since the cotton was gathered late in the season and had suffered from too long exposure to the elements. But as this was purely a comparative test, these facts do not have any bearing on the final conclusions. The two lots would come under the classification of strict-good-ordinary for grade, with a staple length of approximately $\frac{3}{4}$ in. This accounts for the big difference in strength between the two test lots and the standard that was run at the same time.

After the cotton had been gathered and ginned, the two lots were subjected to identical conditions during processing: they were run through the same machines, at the same speeds, with the same settings. Relative humidity was kept constant, and all other variables were eliminated.

Results of the Test

The three charts give the final results in condensed graphical form. Fig. 3, shows the waste removed at different points through the carding. The total waste removed from the lot of machine-picked cotton amounted to 1.2% more than that removed from the hand-picked. It is evident, therefore, that the mechanical cleaning at present is not quite thorough enough. But even as it is, this small difference in cleanliness is not sufficient to be of much consequence. The final yarn produced did not show any noticeable difference in either cleanliness or evenness.

Fig. 4 represents the yarn spun with filling twist: this was approximately 19s count with 15.5 turns per inch. The averages of the skein breaks corrected to 19s were as follows: standard, 72.5 lb.; machine-picked, 37.5 lb. and hand-picked, 34.6 lb. In other words, the ratio of standard to test lots is approximately 2 to 1. This same filling yarn was then woven into a fabric, and a series of breaks made using 2-in. jaws. The results of these were

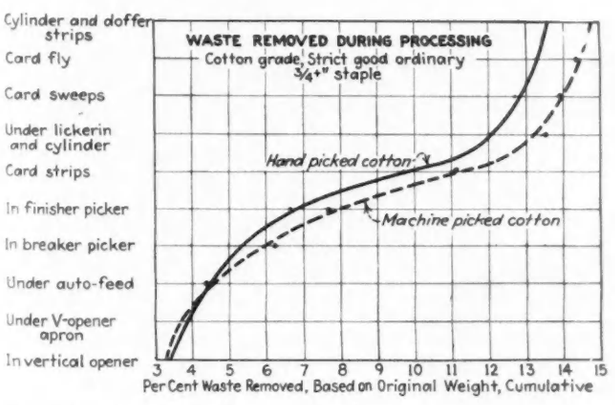

Fig. 3. Chart showing waste removed during processing

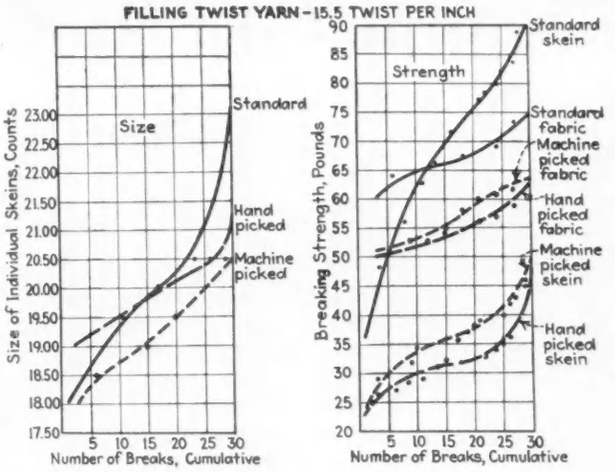

Fig. 4. Results with yarn spun with filling twist

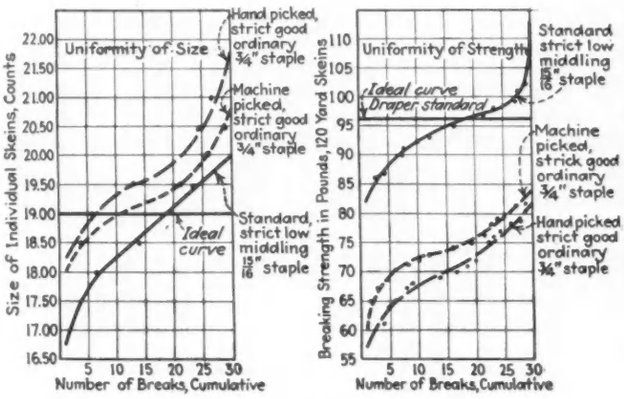
Uniformity of Size
Hand picked, strict good ordinary ¾" staple
Machine picked, strict good ordinary ¾" staple
Ideal curve
Standard, strict low middling 15/16" staple
Size of Individual Skeins, Counts
Number of Breaks, Cumulative
Uniformity of Strength
Ideal curve Draper standard
Standard strict low middling 15/16" staple
Machine picked, strick good ordinary ¾" staple
Hand picked strict good ordinary ¾" staple
Breaking Strength in Pounds, 120 Yard Skeins
Number of Breaks, Cumulative

Fig. 5. Results with yarn spun with warp twist

as follows: standard, 67 lb.; machine-picked, 57 lb.; and hand-picked, 55 lb. In this case the test lots are about 16% weaker than the standard. Also, in both instances the machine-picked cotton produced a slightly stronger yarn.

Fig. 5 gives the results obtained from tests of the 19s warp yarn with 20 turns per inch. The average values of the skein breaks in these instances were as follows: standard, 95 lb.; machine-picked, 77 lb.; and hand-picked, 75 lb. Here too, the machine-picked cotton makes a little better showing than the hand-picked. In Fig. 5 there are two horizontal lines drawn, each marked "Ideal Curve." The amount that the other curves run above or below these ideal curves represents the variation in either size or strength. The ideal would of course be the horizontal, as this would show that each skein sized 19s, or broke at 96 lb.—the strength given in the Draper tables for this size of yarn.

Staple Not Injured

Although these results were obtained from tests on but one lot of cotton, I believe they may be accepted to show that the mechanical harvester does not injure the staple to any extent. While the results are slightly in favor of the mechanically-picked cotton, I should not want to say that mechanical harvesting actually improves the spinning qualities although there is a possibility that such may be the case.

Sound Cost Methods Used by 57% of Fine Goods Mills

THAT 57% of the fine goods mills use sound methods for predicting costs on individual fabrics or yarns, is the conclusion drawn from a survey conducted by the Cost Section of The Cotton-Textile Institute. In the following letter, addressed to manufacturers, Sydney P. Munroe, manager of the Cost Section, points out the danger threatened by the remaining 43% and offers the facilities of the Institute in furthering the employment of sound cost methods:

To Executives of Fine Goods Mills:

The peculiar problems involved in the manufacture and sale of fine goods are such that accurate predetermination of individual costs is a vital requirement. Such producers are frequently required to determine prices on given fabrics before these fabrics have ever been manufactured in the mill. Hence, in periods when prices can be based upon costs, the accuracy of the costs used for this purpose has a direct effect upon the mill's profits. If a mill whose costs are determined by unsound methods attains a profit during such periods it has done so in spite of an unnecessary handicap, and the favorable results may have been a matter of chance.

While the percentage of accurate cost systems in fine goods mills compares favorably with similar percentages in other industries, those systems open to criticism constitute a menace to the mills concerned and to the market as a whole

We have recently surveyed the cost methods in use in about 90% of the fine goods mills. This analysis indicates that 57% of the mills use sound methods for predicting costs on individual fabrics or yarns. In 16% of the mills the methods used are only fair. The remaining 27% of the group employs methods which are very misleading.

This percentage of accurate cost systems is higher than the percentage which obtains throughout the industry, and very much higher than similar percentages in certain other groups. We believe it compares favorably with similar percentages in other industries. This is a compliment to the ability of the executives of fine goods mills, and indicates that in general they realize the importance of this subject in their field of activity.

It may be contended that under present market conditions prices cannot be based upon costs and that the mill must accept orders at whatever the market affords. If we assume that this contention is sound, it should be observed that this present market situation will be gradually improved by the individual efforts of the mills in reducing surplus stocks and adjusting their outputs in conformity with the present and potential demand for their particular goods. Eventually these individual corrective measures will result in a situation where the executive can again employ his cost predictions in determining the prices which he will quote. When that time arrives, accuracy and soundness of cost determination will again assume its normal importance.

The figures already displayed indicate that 43% of the mills in this group employ cost methods which are open to criticism. These inadequate methods chronically contain characteristic weaknesses which generally involve the averaging together of certain cost increments which should not be averaged, thereby transferring some of the costs of certain fabrics to other fabrics which do not actually incur them. The inevitable result of such processes is that some fabrics are over-figured and other fabrics under-figured as to their true cost.

Under normal market conditions the mill which bases its quotations upon misleading cost figures will accept more and more orders on the styles which it has under-figured, and will assign more and more looms to their manufacture. The unfortunate result to the mill in question is self-evident. There is, however, an equally unfortunate result to the mill's competitors and to the entire group, because these subnormal quotations serve largely to establish the market on the fabrics in question, thereby forcing down prices of competing mills who may be well-informed; and this price reduction on specific fabrics becomes a bearish influence on all other allied constructions. With over 40% of the members of the group so situated that they are apt at all times to quote disastrous prices unwillingly, it is difficult to conceive how any lengthy period of stability may be expected in the fine goods market.

Under existing conditions mill managements are so thoroughly concerned about present problems that the problems of the future may not be receiving their normal share of attention. While the subject under discussion has been treated thus far as a problem relating largely to the future, it nevertheless has important present aspects. One hears the statement from some mill executive that he is refusing to accept orders which are priced below his cost. If his cost methods are misleading, then it is a question just how he can tell when a price is below cost. The statement is sometimes heard that a mill finds it cheaper to accept orders below cost than to curtail. Again it is doubtful whether the mill is sufficiently well-informed to state accurately whether such is the case.

Furthermore, even if conditions were such that all prices seemed to be below cost, it would be of very definite value if all mills knew just how much they might expect to lose on each order. This knowledge would serve as a deterrent to the acceptance of many such orders and would have at least a psychological tendency to stiffen resistance against further price reduction. Again at times it should indicate to the management occasions when possible economies and minor changes in specifications would lead to profits on certain orders which might otherwise be sold at a loss.

The Cost Section has five field agents in addition to its New York staff, and these resources are at the disposal of any mill which may care to avail itself of such services. It is our sincere desire to cooperate with the fine goods group in assisting it to a solution of its problems. This letter is being sent to all fine goods mill executives. May we not have your comments or criticisms, and your suggestions as to how we can assist in furthering the employment of sound cost methods among fine goods mills?

SYDNEY P. MUNROE,
Manager of Cost Section.

Courtesy Weber & Heilbroner

This is not Mr. Scott. It is, however, Mr. Scott's idea of what the well-dressed man will wear

"White Cotton Tuxedos Fail to Stir My Aesthetic Emotion..."

By Robert A. C. Scott

AT LEAST one of our readers does not thrill to the vision of sartorial emancipation opened up for mankind by Stuart Warren Cramer, Jr., in the Aug. 16 issue of TEXTILE WORLD. Robert A. C. Scott, in the letter printed below, admits frankly that white cotton tuxedos fail to stir his aesthetic emotions. With no clue other than that Mr. Scott is a resident of White Plains, N. Y., we employed the same untiring research tactics which we used in Mr. Cramer's case and discovered that Mr. Scott is associated with the American Woolen Co. But that isn't all we learned . . . His connection with that company is as women's wear stylist.—*Editor.*

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Editor, TEXTILE WORLD:

Mr. Stewart Warren Cramer Jr.'s article under the title of "Male Plumage" contained in your issue of Aug. 16 is, without doubt, a most interesting and instructive contribution. From the cotton manufacturer's viewpoint it might even be regarded as so convincing that exception to any or all of it would be considered puerile and insignificant.

Be that as it may, the various theses propounded by Mr. Cramer cannot be considered as representing the opinion of the American people as a whole, but rather as a small percentage thereof. Consequently there is another side to the question, and one which I believe to be worthy of our consideration.

Mr. Cramer states "Man is wearing in this year of grace clothes that are preposterously ugly, monotonous, uncomfortable, and impractical. To deny either of the first two of these accusations would admit a lack of taste so colossal that no one is likely to do it."

That is rather a large statement to make and in my opinion is not a truthful reflection of our present sartorial style. Have we to conclude that man has made no progress during the past century in sartorial ideals? If the assertion is true —to which I take exception—that men's clothes are preposterously ugly and monotonous, then we are a nation of human beings devoid of aesthetic feelings. After all what one person considers good taste may be positively distasteful to another, proving that no matter what style of clothing be introduced, no unanimity of approval can be assured.

The appearance of men's apparel—whether they be dress or business suits—depends on the physical build of the person, the style of tailoring, the manner of fit, and the material of which the garment is made. Providing all of these specifications are properly met, I fail to see how a person thus attired can be considered ugly or even monotonous. What guarantee have we that cotton garments would in any way enhance the sartorial appearance of mere man?

No matter on what grounds the exponents of cotton goods may argue, whether it be color, coolness, comfort, practicability or beauty, the makers of fine worsted suitings can not only fill the bill but fill it to the entire satisfaction of all. If while cotton tuxedos are considered so beautiful to the eye, so comfortable to the wearer, and in every way practical, why the delay in their adoption? Is it due to our habits being so firmly fixed that we are blind to the so-called advantages they offer? I think not. The present generation is quite amenable to change, and given the occasion and the incentive, the step will be taken. To date, however, nothing has been found in the way of material to better our present forms of wearing apparel.

It will be readily conceded that cotton as a material is cooler than any material made from animal fiber. Yet paradoxical as it may seem, that in no way substantiates the theory that a cotton suit will be more comfortable in warm weather than a light-weight worsted.

Material alone does not decide its cooling propensities but rather material plus construction. Whether it be composed of cotton or worsted, the cloth must be more or less firmly constructed, to prevent slaziness and to allow for good tailoring. Given the same size of yarn for cotton and worsted, I think we would find that the worsted cloth would permit of fewer thread intersections than the cotton, owing to its elasticity, thereby giving a more open finished texture. This in my opinion would more than counteract the cooler properties of the cotton fiber, and at the same time give added comfort to the wearer. Another advantage peculiar to wool is its absorbency of moisture, a very necessary feature both for comfort and health.

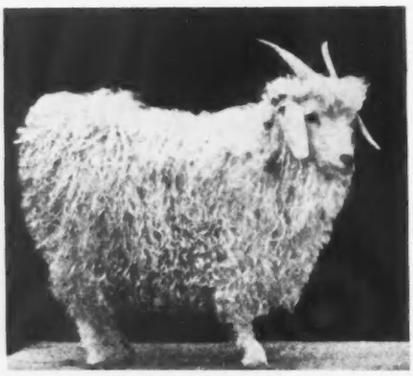
The comfort and practicability of any woolen texture cannot be disputed. Its pliability and softness are factors which make their uses for clothing pre-eminently useful and preferable. The innovation of white cotton tuxedos fails to stir my aesthetic emotions. Picture for yourselves, if you will, the lack of color contrast a ballroom would offer were all the men dressed in white? Is it not the somberness of the men's tuxedos which accentuates the multifarious colors of the ladies' dresses, and thus opens up a vista of beautiful color combinations beyond verbal description?

No—I am afraid Mr. Cramer's dream of the sartorial emancipation of mankind lies not in a cotton direction but rather on a better understanding of the woolen and worsted manufacturers as to the trend of fashion in relation to prevailing climatic conditions. ROBERT A. C. SCOTT.

FLEECE from Other Backs

Part I—MOHAIR

By Fred Grove-Palmer, A.I.C.



Angora goat

HAIR from many animals can be spun into yarns and woven or knit into fabrics for the use of man. In a two-part article, the author discusses the properties and uses of these fibers. Here he describes mohair and its conversion into finished fabric, and in a subsequent section will take up minor fibers.

ONE of the animals that yields very considerable quantities of wool is the Angora goat, from which we get the fiber known as mohair. For many hundreds of years the Angora goat has been raised for its wool in and around Turkey, and there is still a large export from various places in the Near East. It was not until 1848, that the raw wool was exported in commercial quantities to England, when the mohair industry may be said to have commenced. Many efforts were then made to raise the goats in other places but the Turks took especial pains to put every kind of obstacle in the way. Now, however, flocks appear in the United States, in South Africa, and in other parts of the world.

Formerly, the wool which was used in Turkey went into the making of caftans, the long flowing cloaks worn by the wealthier classes. Some yarn is exported from Bradford, but the greater part of the mohair wool used around there is made into plushes, moquettes, dress fabrics, trimmings, astrakhans, and imitation furs. The export trade in mohair from South Africa started about 1859, it gradually increased up to within about ten years ago; since then there has been a steady decline until it is only half what it was at one time. A large amount of mohair is used in France for the manufacture of shawls; in other countries many different kinds of cloth are composed of the fiber.

Evening cloak of imitation fur made of mohair

Although it is generally held that the best fleeces are those known as Cape Kids, which are raised on the grass lands of South Africa, the wool exported from Turkey can usually command prices ranging from 4 to 6 cents more per pound; karoo-fed wool is rather more yellow in tint, which is said to be due to the presence of iron in the soil and drinking water. One of the important features of mohair is its freedom from kemps, those matted masses of dead, opaque fibers that arise from scant feed and undue exposure. Another property of mohair is that it will not shrink when milled. Advantage is taken of this characteristic in the preparation of astrakhans, which feature a curly pile in imitation of the wool from young lambs.

Manufacture of Astrakhans

There are two methods of making astrakhans: in one the wire-woven pile of mohair appears in the form of an extra warp, with the ground warp and filling of cotton. The mohair yarn is heavily curled before use by twisting and boiling. A good construction for such a cloth is: mohair, 1½; ground warp cotton, 30/2 doubled; reed, 5 dents per inch, 5 ends per dent, 6 wires ¼ in. deep; filling, 30/1 cotton. The second method uses an extra filling of mohair, the ordinary filling and warp being sheep's wool. The mohair is floated on the surface at intervals; and during the subsequent dyeing and fulling, the wool shrinks, thus causing the mohair to curl up and form loops.

A typical construction for this fabric is: warp, 11 dents, four ends each, 2/56 botany worsted; filling, 78 picks per inch composed of 4 picks 1/28 botany and 2 picks of 3/30 mohair alternately; set in loom at 72 in. to yield a width of 56 in. when finished. The loops of mohair that are formed when the botany wool has shrunk are not cut; nor are they when the cloth is made in the way described previously. In this latter case, the characteristic curl is obtained by fulling and hammering the back of the cloth.

Blister cloth is one of those fabrics which are not only doubled in construction, but are composed of two fibers. In one fabric the warp and filling are botany; in the other, mohair. In weaving, the two fabrics are brought

to the face alternately, with the result that when the sheep's wool has shrunk, the mohair cloth is left in little blister-like patches. The usual construction is: warp, alternate ends of 2/60 botany and 2/40 mohair in a 32's reed with two ends per dent; filling, the same as the warp, 64 picks per inch, woven on the double.

Gimp is a narrow fabric used for trimming; much of this is made of mohair, but there has been a tendency recently to employ rayon for this purpose.

Grenada is a mohair dress cloth of peculiar design. A suitable construction is: warp, black cotton, 78 ends: filling, 12s mohair, 52 picks per inch; the warp is set in the loom at 50 in. to finish 44 in. The weaving plan is $\frac{2\ \ 1}{1\ \ 2}$ move two.

Imitation fur fabrics made of mohair

Moquets and plushes are pile fabrics used largely in the upholstery trade for covering furniture and for hangings. They usually have a warp of linen, cotton, jute, or ramie, with a pile composed of mohair, silk, rayon—or a mixture of some of these—and luster-worsted yarns; they are wire woven, and may be either plain or figured.

Other Mohair Fabric

Another mohair fabric is that known as mozambique; this a light, gauzy material having a cotton warp and mohair filling. The better quality linings for men's suits are also frequently mohair cloths. Sicilian, a fabric having a fine, hard-spun cotton warp and a mohair filling, is often employed for lining. The construction is: warp, 70/2 cotton, 40 ends per in.; filling, 11 mohair, 44 picks per inch. The warp is set 60 in. to finish 54 in.; a 56-yd. warp will leave the loom at 48 yd. and finish 55 yd., owing to the drawing out in fulling. Another form of sicilian uses luster-woolen yarn for the filling.

Velours have a variety of uses, the principal of which is for making hats; large quantities, however, are employed in upholstery. Real velours appear to be quite smooth, because the pile is cropped as closely as possible.

Mohair finds use also in the fabrication of imitation furs. Some of the furs that have been imitated with considerable success are muskrat, weasel, bear, pony, seal, and rabbit.

Dyeing Mohair

Fleece of the Angora goat can be dyed to any desired shade by the same general methods as are employed in wool dyeing. Owing to its good affinity for dyestuff, mohair seldom requires prolonged boiling in the dyebath. In the case of astrakhans it is usual to dye both fibers in one bath, even when the fabric is composed of a cotton warp with mohair filling. Substantive and acid colors are needed, the cotton being dyed first and then a small quantity of acid being added to color the wool. By choosing substantive dyes that will go on in the presence of acid, the goods may be entered in a hot bath, with temperature maintained somewhat below boil until wool reaches shade.

Uniformity is not essential, but the cotton should always be the deeper shade. Rinsing should be done in a weakly acid bath in order to enhance the luster of the mohair. The fabrics are often woven with yarn-dyed black cotton, the color being chosen with a view to its being acid-proof. In this case the mohair may be cross-dyed with suitable acid colors. Astrakahns dyed in the manner described are characterized by their lustrous pile. This luster can be further enhanced by the following treatment. Prepare the fabric with a solution of dextrine, wheat flour, glycerin, and acetic acid; dry; steam for 30 min. at 15-lb. pressure; rinse; and dry.

For dyeing mohair plushes there are two modes of procedure: one is applicable to those goods which have a white ground; the other is employed for goods having a cotton, linen, or jute ground already dyed fast to acids. In the first case, the single-bath process is often employed to produce light or medium shades, and the two-bath process used for dark shades. When light shades are dyed by the one-bath process, the temperature is kept below 160° F. and a small amount of common salt is added to the liquor. Dark shades, likewise, are dyed at a low temperature, but acetic or formic acid is substituted for the salt.

Full shades often call for the use of the two-bath method. In this case, the wool is dyed first in an acid liquor; and after a very thorough washing, the cotton is dyed in a cold or lukewarm liquor containing a substantive color. This can be done in the ordinary beck, the washing machine, or the jig. The bath should be as short as possible, and to each 12 gal. of liquor should be added ½ to 2 lb. glauber salt and ¾ oz. of soda ash. The goods are worked in this bath for ½ to 1 hour at a temperature starting at cold and working up to not more than 110° F. After lifting from the liquor, the material is rinsed well, the last bath being acidified. The lustering bath previously described is now applied.

Colors obtained in this way will be fast to light and to rubbing but may not be bright enough. In this event, basic dyes must be used. When basic colors are employed, the cotton will need to be mordanted either with tannin-antimony, sumach-iron, or Katanol W. The latter mordant is applied by working the partly dyed fabric for an hour in a bath charged with 4% to 6% of Katanol W. and 30% of common salt at a temperature of 100° to 120° F. After rinsing, the cotton is dyed with basic colors, preferably in the cold, with the addition of from 2% to 4% of acetic acid, or a somewhat

(*Continued on page 69*)

Rayon Machinery Show at Frankfort

By Dr. Kurt Roos

ENORMOUS development of the rayon industry after the war and the increasing interest shown in all countries, have caused the wish to become general to see assembled in an exposition all the machines used in rayon production. This was accomplished at Frankfort this year by machinery manufacturers, despite unfavorable economic conditions in Germany.

The results justified the effort as the German manufacturers of rayon machinery made a group showing of their machines which produced an excellent impression. That foreign countries realized the importance of this first exhibition is shown by the fact that there were many foreigners among the visitors.

The exhibits were shown in four buildings grouped as follows: (1) scientific and technical apparatus, instruments and laboratory supplies; (2) acid-proof stoneware, refractories, and other products of the ceramic industry; (3 and 4) large technical apparatus, machines and fittings, and also technical accessory apparatus and machines; installations and processes; raw materials, accessory materials, and finished materials.

An automatic bobbin spinning machine for viscose rayon made by C. G. Haubold, A. G. Chemnitz, aroused great interest. The operation of the machine is entirely automatic. Regulation of number of revolutions of the bobbins during the spinning process, and the change of the full spinning tubes for empty ones together with the shifting of the thread from the full to the empty tubes, take place without intervention by the attendants of the machine. The regulation is effected by special motors, controlled by a counter mechanism.

Haubold also showed a bobbin spinning machine for acetate silk. In this case the regulation of number of revolutions of the bobbins is not effected electrically, but by a special chain drive. The acetate spinning machine operates automatically. It is also provided with a casing for the spinning parts proper, a matter of importance in the recovery of the solvent.

The same firm also showed a tier twisting machine for spool silk, with a spindle speed of 8,000 to 10,000 r.p.m. and a bobbin diameter of 70 to 90 min. Three kinds of bobbins may be arranged on it: tapered cross-wound, cylindrical cross-wound, and spherical bobbins on tubes. Haubold also exhibited a pressure regulating apparatus for rayon spinning machines, patented in Germany. This pressure regulating apparatus makes it possible, in a closed piping system which is continuously emptied and filled, to adjust to the extent desired the hydrostatic pressure, independent of the pressure existing in the supply mains, and to maintain the adjusted height independent of the fluctuations in the supply mains.

The booth of Carl Hamel A. G., of Schönau, was no less interesting. Here was shown a bobbin spinning machine with automatic change of bobbins and shift of thread. As the worker has only to remove the full bobbins and to set up the empty tubes, he can attend to three times as many bobbins, it is asserted, as in the case of machines without automatic change. The bobbins, immediately after the change, run at the full number of revolutions. There was also shown a three-stage twisting machine with a new type of spindle drive.

Oscar Kohorn & Co., of Chemnitz, showed several bobbin spinning machines and centrifugal spinning machines of the latest type.

The old established firm, Werner Pfleiderer of Cannstatt, exhibited a vacuum xanthate viscose kneader for capacities of 5,700 liters. This combines a sulfiding and solvent process whereby considerable time is saved, loss of material lessened and the viscose improved. The special machine, "acetyl-cellulose-kombino," which makes possible the combining of the acetylizing, ripening and solvent process in one apparatus, was of interest.

There was shown an automatic bobbin spinning machine and a combined washing and bleaching apparatus for rayon hank yarn, made by E. Blaschke of Berlin. This firm also showed a plain glass filter for the filtration of viscose to replace the filter candles heretofore used. Its advantages consist in positive filter surface, and interchangeability with little loss of time. The washing, bleaching and re-treating machine of the Blaschke firm works according to the trickle process and combines washing, desulfuring, bleaching, acid and oil treatment in a continuous operation.

Southern Print Cloth and Narrow Sheeting Mills

Recommend Elimination of Night Work

ELIMINATION of night work for an indefinite period was recommended Wednesday of this week at a meeting in Greenville, S. C., of southern manufacturers of print cloths and narrow sheetings. Those in attendance represented 85,000 looms. Although, naturally, no action was taken which is binding on these manufacturers, it is understood that the mills represented at Wednesday's meeting plan to take this step, voluntarily and individually, as rapidly as proper labor adjustments can be made. They hope that their action will be followed by manufacturers in other sections. It is believed that it will be possible to put the plan into effect in many mills early in the fall.

Called to consider conditions in print cloths and narrow sheetings, this meeting developed the consensus that night work should be eliminated in order to regulate employment, provide full-time operation on the day shift, and insure a sounder balance between production and demand.

T. M. Marchant, president of the Victor Monaghan Co., Greenville, presided over the meeting. Although it has been understood in the market that many manufacturers of narrow sheetings and print cloths have advocated a complete shutdown for the month of September, it could not be learned whether this had been discussed at Wednesday's meeting. However, it is known in the trade that need for continued curtailment has more general recognition at present than possibly ever before.

Test Period Favored

This action by the print cloth and narrow sheetings manufacturers was of particular interest to the writer because, in travelling through the Carolinas in the early part of the week, he encountered the suggestion that night work might be eliminated by all mills, irrespective of nature of product, for a period of months, both to relieve the present situation and to serve as a test. The thought was advanced that permanent elimination could not be effected at this time because there is no unanimity of opinion among manufacturers regarding the advisability of such a step, nor even a demonstrable majority opinion.

It is true that in well-informed circles the belief exists that acceptance of the idea is steadily gaining ground. There is a firm conviction in these circles that complete elimination of night work is bound to come and possibly sooner than is generally believed. However, these are opinions, based of course upon close contact with the field, but not upon unquestionable factual information. There are manufacturers who are not convinced that either sociological or economic considerations demand permanent elimination of night work. Others believe that, from a social standpoint, the employment of women on the night run should be discontinued but that, economically, this action would work hardship on large numbers of employees and on manufacturers themselves. Nor can it be said that all the progressive manufacturers are on one side of the question and all the so-called reactionaries on the other. There is an honest difference of opinion.

Statistics Point the Way

However, most of the manufacturers with whom the writer talked agreed that the present statistical position demands elimination of night work for either a definite or an indefinite period. They admitted that the potential doubling of production hangs over the market like a threat, and that if buyers were convinced that for six months, or a year, or two years, no mills would operate at night, immediate improvement would set in. They feel that announcement of such voluntary action on the part of the mills would be the most salutary influence which could be injected into the market.

As to the *modus operandi,* it is pointed out, where mills are operating three days and three nights per week (which is about the average rate in most groups at present), full-time day shift operation could be substituted. At the start, it is held, the day shift and night shift could be used alternate weeks on the day run; thus wages of individuals would not be affected. Gradually, it is believed, distinction between day operatives and night operatives would be eliminated and employees, whether day or night workers, who cannot find permanent employment in cotton mills, will be absorbed in other fields without too harsh a transition period.

A Test of Feasibility

In addition to the effect of this action upon market conditions, it would serve as a test of the economic feasibility of the elimination of night work. After a year, or two years, or whatever the period might be, it would be possible to determine just what effect it would have upon the status of employees, upon competitive relationships in the industry and upon the permanent potential balance between production and demand. It would afford an opportunity for crystallization of thought on this highly controversial subject on the basis not of opinions but of actual experience.

It would seem quite possible that Wednesday's action on the part of the narrow sheetings and print cloth manufacturers might prove to be the forerunner of an industry-wide development somewhat along the lines mentioned above.

Varied Twill Effects Used in NARROW FABRICS

By Edwin J. Gibbons

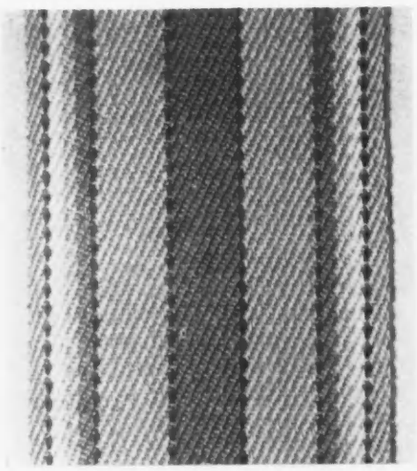


Fig. 1. Various colors in warp

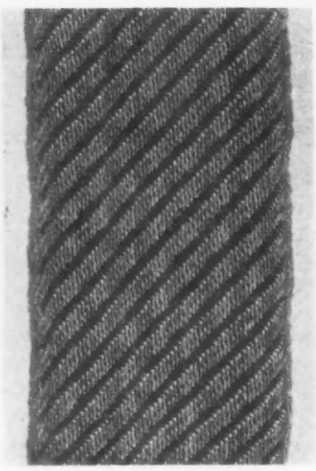


Fig. 2. Striped cotton warp and rayon filling

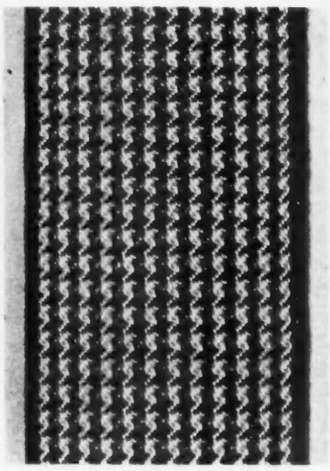


Fig. 6. Shepherd's plaid in suspender webbing

ALL of the derivations of the twill weaves and many of their numerous variations are employed in one form or another in the manufacture of narrow woven fabrics. As in the plain weaves, the simplest methods of ornamenting the twill weaves are (1) by an arrangement of two or more colors in the warp, in the filling, or in both the warp and filling; (2) by the use of widely different counts of yarns or different materials; and (3) by a combination of these methods.

Fig. 1 shows a simple color effect produced by using various colors in the warp. The weave is the two-up-two-down regular twill.

Fig. 2 shows the two-up-one-down-two-up-five-down twill in which a striped cotton warp is used in combination with a rayon filling of a contrasting color. The warp ends are arranged four ends of black and four ends of orange. The filling is dark green.

To Show Color Effect

To show the color effect that will result from the use of two or more colors in the warp and filling, the same method may be followed as was explained in connection with plain-weave color effects, the only difference being in the order of interlacing. In the upper left-hand corner of the space laid out for the design is shown the weave to be used. To the right of the weave is shown the color arrangement of the warp ends. Below the weave is shown the color arrangement of the filling. The balance of the space is devoted to the color effect.

Before painting in the color effect, the location of the raisers in the design should be designated by light pencil marks according to the weave to be used. These may then be painted over with their respective colors, according to the warp color arrangement shown above the design; and the sinkers may be painted in according to the color arrangement of the picks, as shown at the left of the layout.

Fig. 3 illustrates the foregoing and shows the color effect resulting when the warp and filling are both arranged two ends of black and two ends of white, and

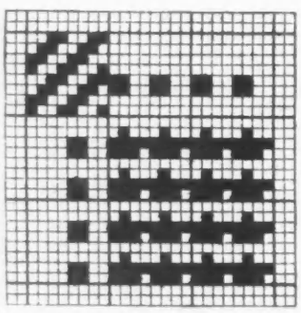


Fig. 3. Tricot effect

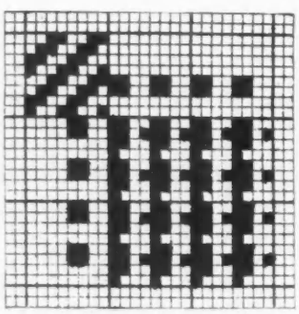


Fig. 4. Hairline effect

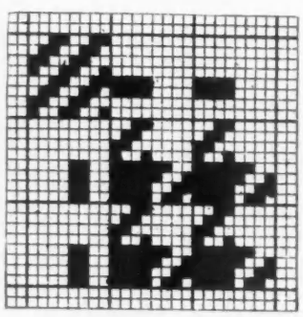


Fig. 5. Shepherd's plaid

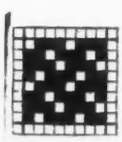


Fig. 7. 3-up-1-down broken twill

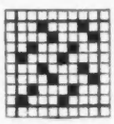


Fig. 8. 1-up-1-down broken twill

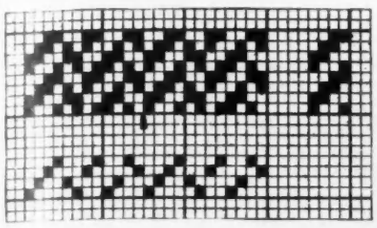


Fig. 10. A broken twill

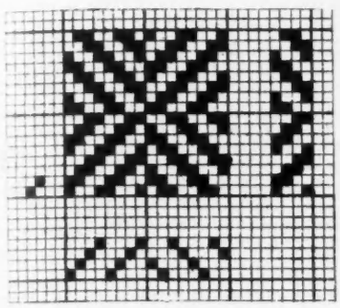
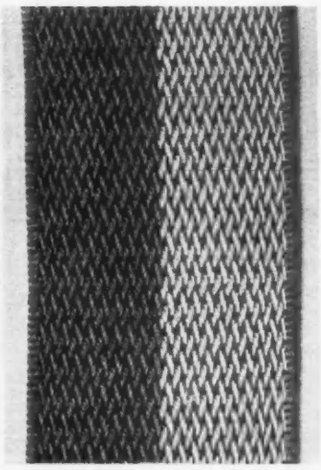


Fig. 13. Figured broken twill

Fig. 11. Rayon suspender ribbon



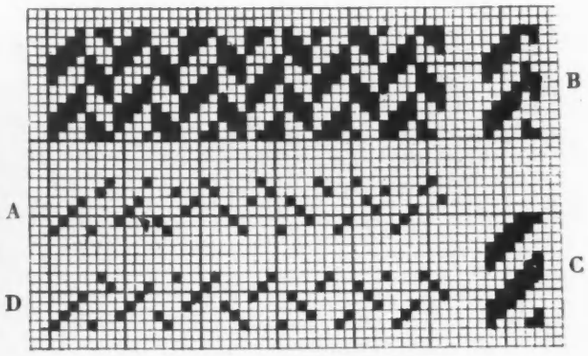


Fig. 12. Two sets of drafts

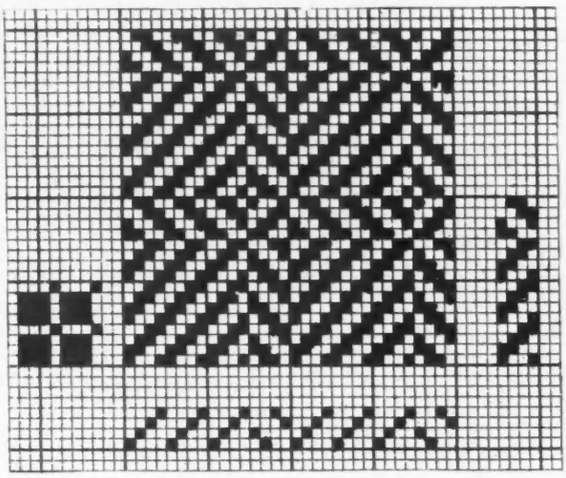


Fig. 14. Figured broken twill

the two-up-two-down regular twill is employed. This is known as a tricot effect.

If the color arrangement of the warp is two ends of black and two ends of white, and the filling arrangement is two picks of white and two picks of black, the color effect will be as shown in Fig. 4, a hair line effect.

Fig. 5 shows the color effect produced with the two-up-two-down regular twill when the color arrangement in both warp and filling is four ends of black and four ends of white; and Fig. 6 is a likeness of a suspender webbing in which this arrangement is incorporated. This effect is technically known as the "shepherds's plaid." In this and similar arrangements the most pleasing effects are usually obtained when a "square" texture is employed; i.e., when the same number of ends and picks per inch is inserted.

In color-effect patterns the number of ends and picks constituting one repeat of the design will be the least common multiple of the number of ends or picks in the complete color arrangement and the sum of the twill used. For instance, in a layout where the color arrangement is complete on six ends and six picks, and the two-up-two-down twill is used, the total number of ends and picks required for one complete repeat of the design is twelve—the least common multiple of four and six.

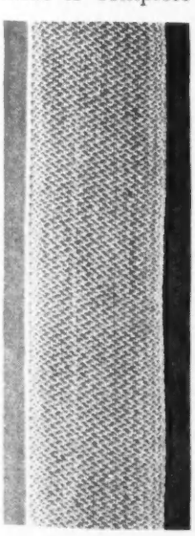


Fig. 9. Lingerie tape

In reproducing color-effect patterns, the shuttles should start on the identical picks planned in the design; otherwise the desired effect may not result.

Broken Twills

Broken-twill weaves are used extensively in the manufacture of narrow woven fabrics. They are formed by carrying the regular twill weave to the right for a certain number of ends, then effecting a *clean break*, and running the twill line to the left for a desired number of ends.

A clean break is formed by placing the raisers of the left-hand twill against the sinkers of the right-hand twill, and vice versa. In the case of uneven-sided twills the single or central raiser (or sinker, as the case may be) of one twill is placed midway along the longest series of sinkers (or raisers) of the opposite twill.

The number of picks on which a broken twill will repeat is always equal to the sum of the twill used. To find the number of ends in one repeat, the twill lines to the left and right must be carried out until the weave repeats.

Fig. 7 illustrates the three-up-one-down broken twill arranged two ends to the right and two ends to the left; and Fig. 8 illustrates the one-up-three-down broken twill in which the same arrangement is used. Note in either case that where the break occurs the single raiser (or sinker) is centered at the opposite float of the contrary twill. This weave is variously termed the "four-harness satin," the "four-leaf clover," and the "crow-twill."

Fig. 9 illustrates a $\frac{3}{4}$-in. lingerie tape composed of a mercerized-cotton warp and a rayon filling. The order of interlacing is the one-up-three-down crow-foot twill, the object in using this weave being to throw to the face of the fabric as much of the filling as possible (with this weave 75% of the filling).

Fig. 10 shows two repeats each way of a two-up-two-down broken-twill weave constructed of four ends of right twill and two ends of left twill, together with the harness draft and chain draft.

Fig. 11 illustrates a rayon suspender ribbon in which the order of interlacing is the four-up-four-down broken twill, four ends to the right and four ends to the left.

Fig. 12 shows the three-up-three-down broken twill, four ends right twill and three ends left twill. At *A*

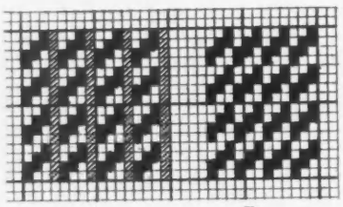


Fig. 15. Evolution of skip twill

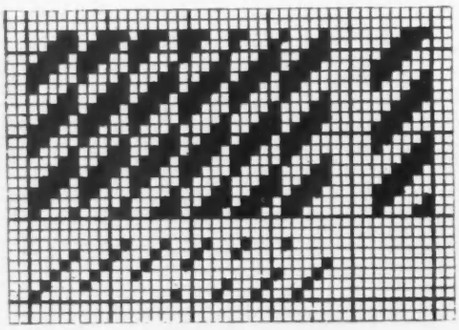


Fig. 16. Skip twill

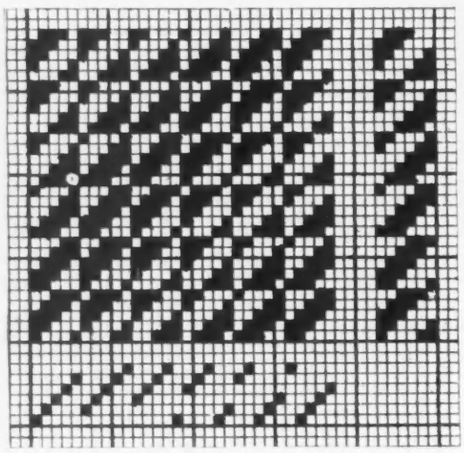


Fig. 19. Finished effect of Fig. 18

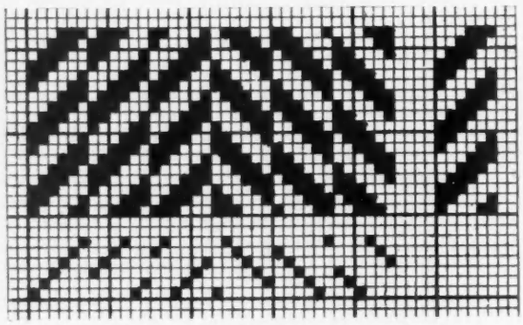


Fig. 17. Broken skip twill

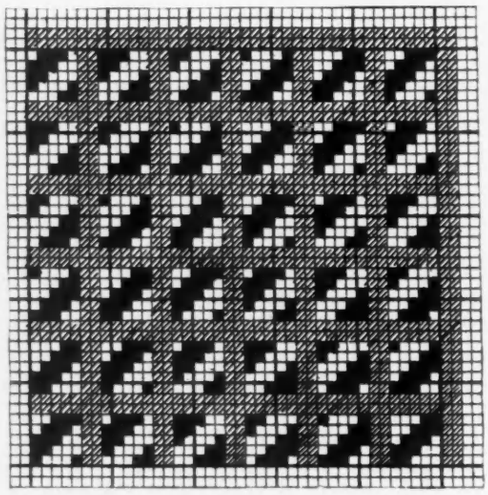


Fig. 18. Evolution of fancy skip twill

is shown a harness draft made according to the sequence in which the different orders of interlacing are encountered in the design; and at *B* is shown the chain draft to be used for a warp drawn in this manner. At *C* is shown a *straight* three-up-three-down twill chain draft; and at *D*, the harness draft to be used with a straight chain. Ordinarily the straight chain is to be preferred over the alternate method, provided its use will not entail an excessive number of harnesses.

Figured Broken Twills

Figured broken twills are formed by making clear breaks both warp-wise and filling-wise. After every clear break the direction of the twill is reversed, effect being blocks of right- and left-hand twill. These blocks are usually made according to a *motif*. (A motif is a plan according to which a design is to be constructed. It is usually laid out on design paper and accompanied by instructions as to the number of ends and picks that each block is to represent in the design.)

Figured broken twills are best formed from the two-up-two-down and three-up-three-down regular twills. (Note: When using the three-up-three-down twill for a figured broken twill, the design should always start with two up. Otherwise the design may not work out properly.)

After determining the space required for the design, the right-hand twill is painted in on the areas represented by raisers in the motif, and the left-hand twill is painted in on the areas represented by the sinkers in the motif.

Fig. 13 represents the motif, the design and also the harness

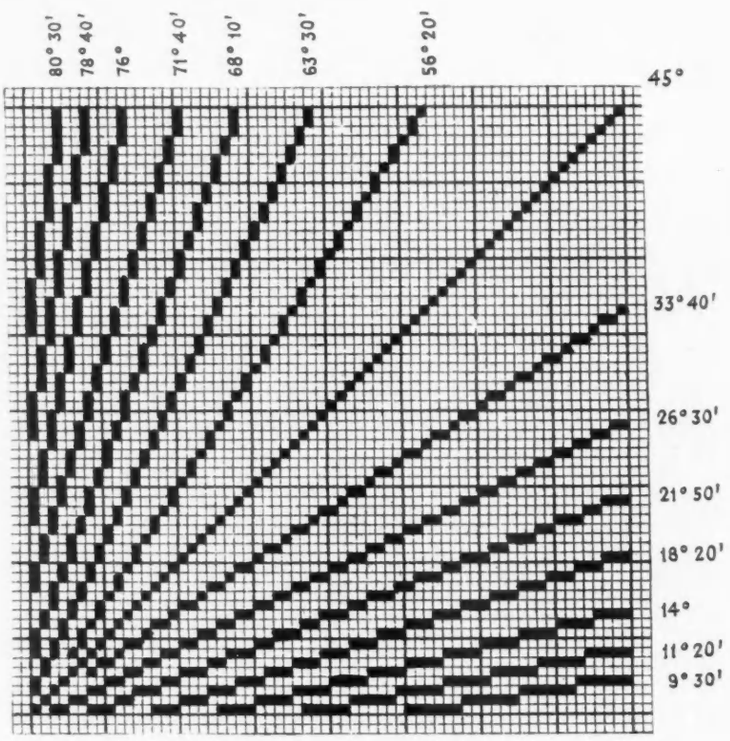


Fig. 20. Common angles of twill

and chain drafts for a two-up-two-down figured broken twill in which each block in the motif represents eight ends and eight picks.

Fig. 14 represents the motif, the design, and the harness and chain drafts for a two-up-two-down figured broken twill in which each block in the motif represents four ends and four picks.

Skip Twills

Skip twills are similar to broken twills to the extent that regularly after a certain number of ends a clear break is formed; but in skip twills the twill lines continue in the same direction after the break. They are made by carrying the twill line (usually to the right) for a given number of ends, and then skipping a sufficient number of ends to form a clear break and continuing the twill line.

The sum of the twill used is always the number of picks on which the weave will repeat. To find the number of ends on which it will repeat, the weave must be carried out on design paper.

The evolution of a skip twill will be easily understood from a study of Fig. 15, which shows four repeats each way of the two-up-two-down twill with every fourth end deleted. Note that the warp ends on either side of each deleted end, when brought together as at *B*, form a clear break; i.e., raisers are brought against sinkers, and vice versa.

Fig. 16 represents a skip twill formed from the three-up-three-down regular twill, using five ends and skipping two ends. The design is three repeats high and one repeat wide.

Novel effects may be obtained with these weaves by the use of a striped warp.

Broken and Fancy Skip Twills

Broken skip-twill weaves may be formed from the regular skip twills by changing the direction of the twill line at regular intervals, as shown in Fig. 17, which illustrates a three-up-three-down skip twill using six ends, skipping two ends, and carrying the weave one repeat to the right and one repeat to the left.

In fancy skip twills clear breaks are formed both warp-wise and filling-wise. This treatment results in square blocks of weave surrounded on all sides by clear break lines. The appearance is often that of warp effect gradually changing to filling effect. These weaves require as many ends as picks and of course are square in one repeat.

When constructing fancy skip twills, it is advisable first to carry out the lower tier of blocks as if a plain skip twill were being constructed, until a repeat of the warp is found. The balance of the design may then be painted in, it being always remembered that raisers are placed against sinkers, and vice versa.

Fig. 18 illustrates the manner in which a fancy skip twill is derived from the regular three-up-three-down twill, using five ends and picks and skipping two ends and picks.

Fig. 19 represents the finished effect of the design shown in Fig. 18, together with the harness draft and chain draft. Note the "skip" draw.

Angle Twills

Besides the 45° twills and all their variations, twills may also be constructed at various other angles, as shown in Fig. 20, which illustrates graphically many of the common variations. Those of an angle greater than 45° are termed steep twills, and those of an angle less than 45° are termed reclining twills.

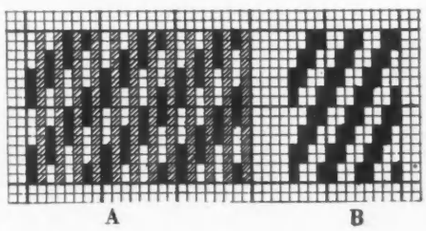


Fig. 21. Evolution of 63° steep twill

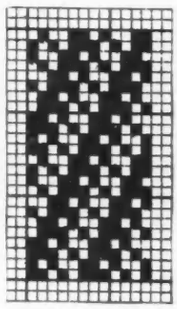


Fig. 22. More elaborate 63° twill

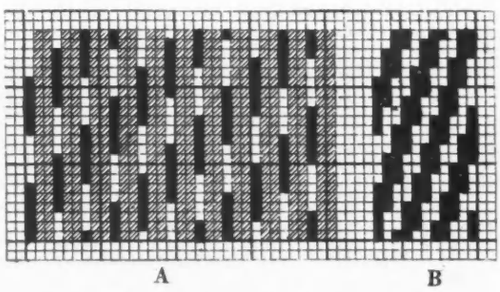


Fig. 23. Evolution of 70° steep twill

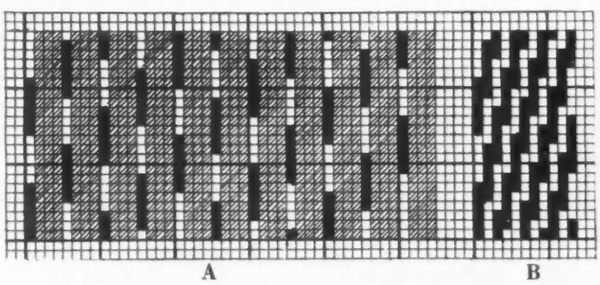


Fig. 24. Evolution of a 76° steep twill

In 63° steep twills each successive end interlaces two picks higher than the preceding end. These weaves may be formed by using only every alternate end of a regular 45° twill.

The number of picks on which a 63° steep twill will repeat is always equal to the sum of the twill. If the sum of the twill is an odd number, the weave will repeat on the same number of ends as picks, thereby forming a square design. If the sum of the twill is an even number the number of ends required for one repeat of the weave will be one-half the sum of the twill, thus resulting in a design which is one-half as wide as it is high. In a square texture the angle of this twill really figures 63° 30′.

Fig. 21 illustrates the manner in which a 63° steep twill is evolved. At *A* is shown the regular four-up-four-down twill, three repeats of warp and two repeats of filling with every other end deleted. At *B* is shown the resulting weave, which reads, "a four-up-four-down 63° steep twill two repeats high and three repeats wide."

Fig. 22 shows a more elaborate 63° steep twill formed from the regular four-up-two-down-one-up-two-down-two-up-one-down twill. The design shows two repeats each way.

In 70° steep twills each successive end interlaces three

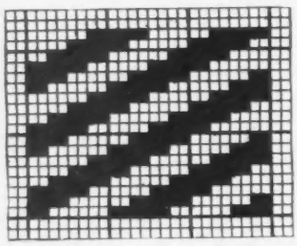


Fig. 25. A 27° reclining twill

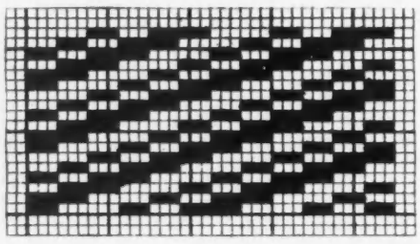


Fig. 26. A 20° reclining twill

picks higher than the preceding end. They may be formed by using only every third end of a regular 45° twill.

The number of picks on which a 70° steep twill will repeat is always equal to the sum of the twill. If the sum is divisible by three, the number of ends on which the weave will repeat will be equal to one-third the sum of the twill. If the sum of the twill is not divisible by three, then the number of ends required for one repeat of the weave will be the same as the number of picks. In a square texture the angle of this twill actually figures 71° 40′.

At *A* in Fig. 23 is shown the regular six-up-five-down 45° twill from which every second and third end have been deleted; and at *B* is shown the resulting 70° steep twill. The completed design is two repeats high and one repeat wide.

Seventy-Six-Degree Steep Twill

In 76° steep twills each successive end interlaces four picks higher than the preceding end. They may be formed by using only every fourth end of a regular 45° twill.

The number of picks on which a 76° steep twill will repeat is always equal to the sum of the twill used. If the sum of the twill is divisible by four, the number of ends required for one repeat will be one fourth the sum of the twill; if the sum of the twill is not divisible by four, but is divisible by two, the number of ends on which the weave will repeat will be one-half the sum of the twill. If the sum of the twill is not divisible by either two or four, then the design will be square in one repeat; i.e., will require the same number of ends as picks.

Seventy-six-degree steep twills are often termed 75° twills.

At Fig. 24 is shown the evolution of a 76° steep twill and also the resulting weave. The completed design is two repeats high and one repeat wide. The twill used in this case is the six-up-five-down.

Twills steeper than 76° are seldom encountered in the general run of narrow fabrics.

Reclining Twills

Reclining twills are used most often in narrow fabrics in connection with extra warp for figures. By using each end of a regular 45° twill twice, is formed what is commonly known as a 27° reclining twill. In a square texture the angle of this twill actually figures 26° 30′.

The number of picks on which the weave will repeat is always equal to the sum of the twill used.

The number of ends on which the weave will repeat is always twice the sum of the twill

Fig. 25 represents the three-up-three-down 27° reclining twill, and is three repeats high and two repeats wide.

20° 14° Reclining Twills

By using every end of a regular 45° twill three times, is formed what is commonly called a 20° reclining twill, though in a square texture the angle formed by this twill actually figures 18° 20′. The number of picks in one repeat of the filling is always equal to the sum of the twill used. The number of ends on which the weave will repeat is always three times the sum of the twill.

Fig. 26 illustrates the two-up-one-down-one-up-two-down 20° reclining twill, and is three repeats high and two repeats wide.

By using every end of a regular 45° twill four times, a 14° reclining twill is formed. The number of picks in one repeat of the filling is always equal to the sum of the twill. The number of ends in one repeat is always equal to four times the sum of the twill. This twill is often termed a 15° reclining twill.

Curved Twills

Curved, or undulating, twills are a combination of the steep twills, the regular twill, and the reclining twills. The twills commonly emyloyed are 63°, the 70°, and the 76° steep twills, the regular 45° twill, and the 27° reclining twill. The number of picks in one repeat of the weave is always equal to the sum of the twill used. The number of ends on which the weave will repeat depends entirely upon the number of ends of each of the different twills used.

Fig. 27 shows a curved twill constructed from the four-up-two-down-one-up-two-down twill. The number of ends of each angle twill as they appear in the design are as follows: one 45°, one 27°, one 45°, one 27°, three 45°,

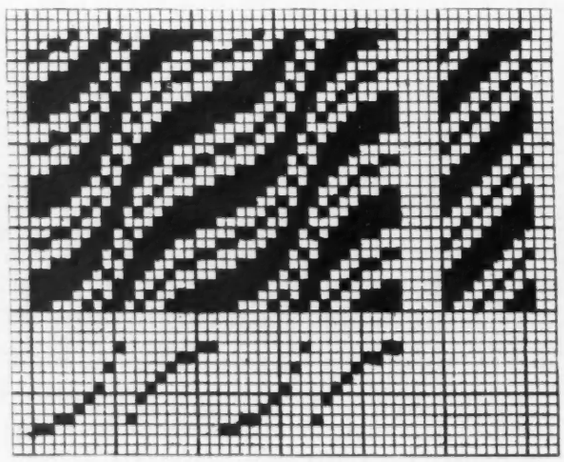


Fig. 27. Curved twill

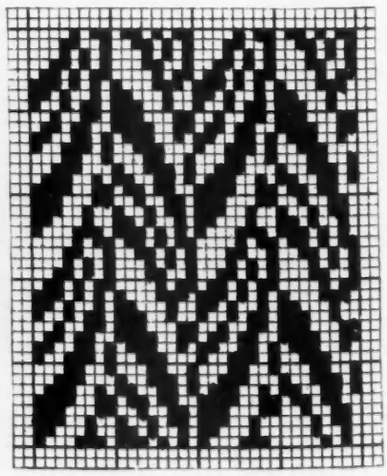


Fig. 29. Broken curved twill

four 63°, four 45°, one 27°, one 45°, one 27°; total, eighteen ends. The design is three repeats high and two repeats wide. The chain drafts for these weaves are preferably made straight, and the harness draft constructed accordingly.

Fig. 28 illustrates a bathing belting, the central portion of which is ornamented with a curved-twill figure.

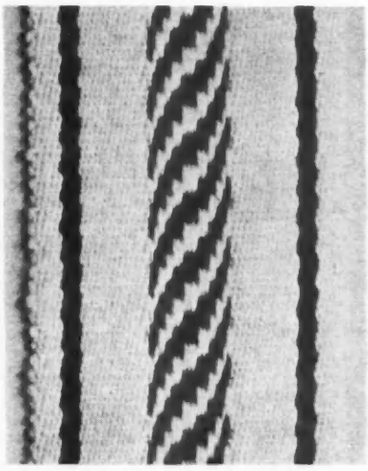


Fig. 28. Bathing belting with curved-twill figure

Broken Curved Twills

Broken curved twills are formed by carrying a curved twill for a given number of ends in one direction and then forming a clear break line and running the twill in the opposite direction, as in the regular broken twills. The number of picks in one repeat of the filling is always equal to the sum of the twill. To find the number of ends, the weave must be carried out until it repeats itself.

Fig. 29 shows two repeats each way of a broken curved twill made from the five-up-three-down-two-up-two-down-three-up-five-down twill, using three ends 45° twill, three ends 63° twill, one end 70° twill, and one end 76° twill.

The second part of this article, which is to appear in an early issue, will discuss pointed twills, pointed curved twills, figured pointed twills, fancy twill effects, entwining twills, corkscrew weaves, figured corkscrew weaves, and shaded twills. This article is the eighth of a series on the design and construction of narrow woven fabrics by Edwin J. Gibbons, instructor in textile design at Samuel Slater School, Pawtucket, R. I. Dates and subjects of previous articles were as follows: edges, Nov. 16; edge wires, Dec. 28; tubular weaves, Jan. 25; foundation weaves, March 1; varied effects related to the plain weave, April 5 and April 12; drawing-in drafts, June 21; chain drafts and reeding, Aug. 2. *All rights to the further use of these articles are reserved by the author.*

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The Cotton-Textile Institute Shows Its Wares in England

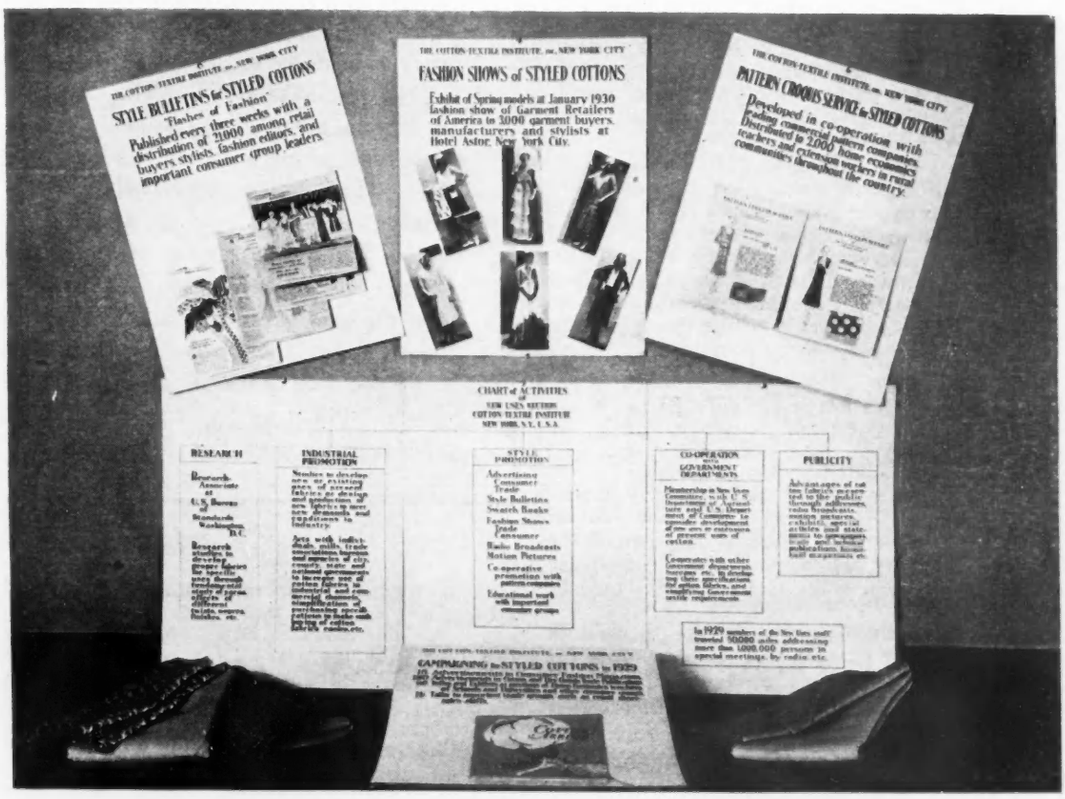
STYLE BULLETINS for STYLED COTTONS
"Flashes of Fashion"
Published every three weeks with a distribution of 21000 among retail buyers, stylists, fashion editors, and important consumer group leaders.
FASHION SHOWS of STYLED COTTONS
Exhibit of Spring models at January 1930 fashion show of Garment Retailers of America to 3000 garment buyers, manufacturers and stylists at Hotel Astor, New York City.
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CHART of ACTIVITIES
RESEARCH
INDUSTRIAL PROMOTION
STYLE PROMOTION
CO-OPERATION with GOVERNMENT DEPARTMENTS
PUBLICITY

An exhibit made in Manchester, England, earlier in the year by The Cotton-Textile Institute which demonstrated to British cotton manufacturers the variety of the services performed by the Institute

OVERSEERS' ROUND-TABLE

THIS department offers a new subject for discussion each week and gives readers' comments on problems introduced during previous weeks. The subject which was opened four weeks ago is closed this week and a summary of contributed ideas is given on opposite page

◆

Arranging Employment in Slack Periods

Editor, Overseers' Round-Table:

SOMETIMES I wish that the overseer did not have to think of sharing up work during slack periods, with its attendant problems, but we should all think of the other fellow and not kick him when he is down. If all would cooperate, sharing up would not be difficult, but 75% of the workers will admit that they are inclined, when working on another's machine, to say, "What do I care when it's not my machine?" The first thing an overseer knows he is in trouble up to his ears trying to keep harmony among the workers.

From the experience which I have had I found this system of sharing to work out the best: First, I would weed out the married women; next came the out of town single help, with no favoritism being shown; then I would study the ability of my young help and if they could be fitted into a position outside I would make it my business to assist them; if there was still necessity for sharing I would divide the work on a three day basis, which would not give the operative time to make many changes on some one else's machine. C.

Who Should Set Rates of Pay?

Editor, Overseers' Round-Table:

AS TO the decision of rates where there is a leeway in pay; this should be decided by the one who is responsible for the financial showing of the mill. While there should be cooperation, the overseer is not generally held responsible In the decision of this question the Golden Rule should be followed.

The stockholders are entitled to a reasonable dividend on the money invested. Labor is worthy of its hire. And the managers of all mills of the same class of work should cooperate enough to see that capital and labor each get what is due. JAMES L. TURNER.

Editor, Overseers' Round-Table:

THE SUBJECT of who should set the rates of pay offers such a wide scope for discussion that space in these columns would not permit of treatment in full detail, but a few brief comments may be in order.

I do not agree with Bill that an overseer should fix the rates and even make them variable. If he did he would place himself in a very troublesome and precarious position, for obvious reasons. The management should have this responsibility, with the super and overseer acting in an advisory capacity only.

Everybody, wherever possible, should be on piece rate to give the better help a chance to make more than the less competent. "OVERSEER."

Editor, Overseers' Round-Table:

OVERSEERS SHOULD not be given too much leeway in the vital subject of setting rates. Before there is any attempt to increase rates there should be a consultation between the superintendent, overseer and cost department. Increasing rates means increasing the cost of production and, due to the close margins, may turn a profit into a loss.

The overseer and super should, in my estimation, work out some sort of control with maximum and minimum rates.

A Whole-Day Holiday

"PETE says that he has a topic he wishes to bring up for discussion this week," Superintendent Chase addressed the overseers, "so I'll turn the chair over to him."

"We have been hearing quite a bit, through one channel or another," Pete spoke up, "about abolishing the Saturday half-holiday so the workers will have a day to spend. I've been thinking it over and I believe that a discussion of the subject from the worker's standpoint would be enlightening. Most of the discussion to date has been carried on by economists and captains of industry. Now, we are all workers—and I hope we all have some money—so we are the ones they talk about when they say a full holiday on Saturday would lead to more spending and thus help consumption and in turn production.

"Having advanced the subject I'm going to be the first to give my opinion," Pete continued, "and my opinion is that the proposition is sound; the workers should have a full holiday on Saturday. In the first place, it takes time to spend money and if you don't have the time the money just lies around in the old sock. If this country depended entirely on exports then you wouldn't have to worry about having the domestic workers spend, but since the domestic market is the big field it should be given every stimulus. In the second place, the textile industry has been troubled with overproduction—or underconsumption, if you will. Cutting out the half-holiday on Saturday, without adding these hours to the other days, would certainly decrease production and, at the same time, start the worker off after a night's sleep with a full day to spend, thus increasing consumption. Now don't you men think that you would spend more if you didn't work Saturday morning?"

"No sir, I don't," Bill responded, "because I

for Saturday?

seem to spend just about all the money I have under present conditions. My wife is probably better qualified to talk about spending money than I am, but I do know that I can always hear the wolf scratching hopefully on the door. All this talk gets a bit confusing anyway. John D. says that you must save. Then Henry Ford says you must spend. If we all had to work every minute we might not spend much, but we certainly would save. With all Saturday off I might spend more, but if I did I might just as well go out and shake hands with the wolf.

"I might enjoy a bit of sleep on Saturday," Bill concluded, "but if you sleep too much it gets to be a habit and you want every day off. As for Pete's suggestion that production would be cut, I imagine there would be some confusion with the mills remarking, 'I'll do it if all the others do.' No, the present arrangement is good enough for me."

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Do *you* think that you would spend more if Saturday were a full holiday?

Overseers and others are invited to discuss this and other questions brought up in the super's talks. Letters accepted and published will be paid for without regard to length. Brevity is desirable.

The overseer, in engaging new help, should be allowed to set a rate inside these limits and to increase this rate as he sees fit, but the maximum should never be exceeded.

JOSEPH POWER.

The Overseers Discuss Their Own Overtime

Editor, Overseers' Round-Table:

IT IS my opinion that an overseer who is on salary, thus being paid for holidays and slack periods, should not receive any additional pay for overtime. If he has the true interests of his department at heart he should not mind giving extra time to meet the demands of rush orders, etc., and he should not expect additional pay.

On the other hand, if an overseer is not on salary, and is therefore docked for slack periods and holidays, he should receive additional pay for overtime. FRANCIS J. MCNEICE.
Overseer of Dyeing.

Editor, Overseers' Round-Table:

THE RESPONSIBILITIES of the overseer are large. He must keep up the machinery, secure and train help, keep up production with low cost, maintain quality, reduce the waste account and lower power consumption. I think the overseer who can produce these results is entitled to straight time. However, there should be no pay for extra time, for the successful overseer will have his job at heart at all times whether the mill is running or stopped.

The successful overseer considers it his duty to study economy of operation and makes every cent count to the end that the company's profits may be increased. Economy must be put into practice and it is the overseer who is largely responsible. Once again, the man who can produce the results is entitled to straight time. W. R. ENNIS.

Rewards and Penalties for Varying Grades of Work

Editor, Overseers' Round-Table:

SORRY BUT I cannot agree with Pete or Bill, because either bonus or fine causes bad feeling among the employees. Try to tell a good operator his bonus was not as large as so-and-so's because his mark was not so good. Just try. Fine an operator for bad work and he will want to see it, or does not believe it. Even if it is shown to him, he will try to tell you it belongs to someone else. He is sore as well as the one with a small bonus. The result is a larger turnover and more bad work.

I believe the most effective way in dealing with this important subject is to approach an operator something like this: "John, I just came up from the finishing room and found quite a lot of bad work; some was from your machines. Have any trouble with your machines? We are trying to cut down on this unnecessary loss, so try to watch out for that a little closer."

"The chances are he will answer like this: "All right, Mr. ....., I didn't know I had so much, but I'll be more careful after this."

Even if you have to remind him of it later on, I believe this the most effective way. A. J. L.

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Summary of Discussion on Fine or Bonus

Analysis of the contributions dealing with the subject of whether a fine, a bonus, or some other system offered the best means of avoiding bad work reveals an interesting cross section of opinion. Only 15% of the contributions favored a fine. A bonus was advocated by 35%, 50% being opposed and 15% doubtful. Of those voting against either a fine or a bonus, 50% stated that a lay-off, proportionate to the amount of bad work produced, was the best solution, while the balance said that the best results were obtained along educational lines; by presenting the problem to the workers and securing their cooperation.

NEWS about MEN

DEXTER STEVENS, who served as vice-president for about a year, was elected president of the Manville-Jenckes Co. at a meeting of the stockholders held in Providence, R. I., on Aug. 22, succeeding FREDERICK L. JENCKES, who resigned that position last month. Mr. Stevens came to the Manville-Jenckes Co. from the Esmond Mills, where he was general manager and where he had been located for 15 years. HENRY F. LIPPITT continues as chairman of the board of directors of the Manville-Jenckes Co., while ISAAC B. MERRIMAN remains general manager. Other officers elected at the meeting are ERNEST L. LITTLE, as treasurer; ROBERT L. BRUNET, vice-president, and CHARLES R. STEEDMAN, secretary.

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DR. W. C. HAMRICK, head of the Hamrick group of textile mills at Gaffney, S. C., has been elected chairman of the board of directors of the Gaffney branch of the People's Bank of South Carolina.

THEODORE P. GROSVENOR, president of the Grosvenor-Dale Sales Corp., selling agents for the Grosvenor-Dale Co., No. Grosvenor-Dale, Conn., and the Warren Mfg. Co., Warren, R. I., recently resigned. He has been succeeded by HOWARD E. BISHOP, who also continues as sales agent for the Gosnold Mills Corp., New Bedford, Mass.

W. G. EFIRD, prominent textile executive of Albemarle, N. C., is in the Salisbury, N. C., hospital suffering from bruises and a broken rib, he received last week while enroute to Salisbury on the Albemarle-Salisbury highway, when his car skidded and he was thrown against the steering wheel with considerable force.

R. L. STONE, president of the Bassett (Va.) Knitting Mill, Inc., has been elected to the board of directors of the recently organized Bassett Furniture Industries Corp., at Martinsville, a $5,000,000 concern.

H. T. BRYAN, president of the Bryan Hosiery Mills, Chattanooga, Tenn., recently purchased the beautiful home of Mrs. N. J. Ethridge, located in Fairyland, on Lookout Mountain, near Chattanooga.

J. LEE BAUSHER, president of Infants Socks, Reading, Pa., and family are occupying a cottage at Byndenwood, Pa., for the balance of the summer.

H. E. UNDERWOOD, head of the Underwood Silk Mills, Fultonville, N. Y., is passing a vacation at points of interest in Canada.

L. M. O'MELIA, president of O'Melia Silks, Inc., Fonda, N. Y., has returned from an extended sojourn at Saratoga Springs.

F. J. SHUTTS, president of the Ballston (N. Y.) Knitting Co., donated a number of valuable prizes for the various events held this week at the Saratoga County Fair.

J. J. SINNOTT, president of the Walnott Knitting Co., Utica, N. Y., will spend the next few weeks at Poland Springs, Me.

FULLER E. CALLAWAY, JR., treasurer of the Callaway group of mills, La Grange, Ga., and Miss Alice Hand, of Pelham, Ga., were married recently.

I. C. MILNER, executive vice-president of the Gate City Cotton Mill, College Park, Ga., who recently underwent an operation for appendicitis at the Davis-Fischer Sanitorium, is getting along nicely.

CAPT. ELLIOTT WHITE SPRINGS, of Fort Mill, S. C., vice-president and treasurer of the Fort Mill Mfg. Co., was appointed by Governor Richards of South Carolina, as one of the State's representatives at the National Legislative Air Conference which met Aug. 18 to 20 in Chicago.

WALTER E. SCHUSTER, treasurer of the Schuster Woolen Co., and the Hayward Woolen Co., both of East Douglas, Mass., also the Millbury (Mass.) Woolen Co., and FRANK KILMER, treasurer of the Queensbury Mills, Worcester, Mass., have been elected trustees, vice-presidents and members of the board of investment of the reorganized Millbury (Mass.) Savings Bank, of which the new president is WILLIAM W. WINDLE, president and treasurer of the W. W. Windle Co., Millbury.

WHITWORTH BIRD, formerly of the Hudson (Mass.) Worsted Co., sailed from Europe on the S.S. "Europa" on Aug. 23, after passing the summer in England, France and Germany.

J. A. GROVE, treasurer of the Wiscassett Mills Co., Albemarle, N. C., has been nominated for the legislature by Democrats of Stanly County.

FRED A. RAKESTRAW, Hyde-Rakestraw Co., Philadelphia, and his family recently returned from a motor trip through New England, where they spent a short time at several summer resorts.

T. D. WARDLAW, head of the firm of T. D. Wardlaw & Son, Toronto, Canada, agents for many textile firms, is now enjoying a trip to Europe.

FREDERICK A. JACOBS, secretary and treasurer of the E. H. Jacobs Mfg. Co., Danielson, Conn., has returned home after six weeks' vacation at Harwichport, Mass.

HERMAN B. TEMKO, of Greensboro, N. C., was elected president of the Southeastern Association of Waste Material Dealers at the organization meeting held recently.

F. B. BUNCH, secretary and treasurer of the Statesville (N. C.) Cotton Mills, is on a business trip to the Pacific Coast, where he will establish sales agencies for handling the upholstery fabrics manufactured by his mill.

GEORGE W. NORWOOD, treasurer of the Thayer Woolen Co., Oxford, Mass., and family, will pass the next month at Squirrel Island, Me.

BAYLIS G. ALDRICH, treasurer of the Forestdale (R. I.) Mfg. Co., and Hortense Fister, Milford, Mass., were married in South Strafford, Vt., on Aug. 16.

G. W. CHILDS, secretary of the Chalmers Knitting Co., Amsterdam, N. Y., is enjoying a hunting trip to the Bourbonnais-Kiamika Hunting and Fishing Club, P. Q., Canada.

J. ROGER WALLACE, assistant economist of the New York Cotton Exchange, has resigned from that position to join the economic staff of the Federal Farm Board at Washington. Mr. Wallace is to be succeeded by A. S. WOLFORD, lately purchasing statistician and assistant to the director of purchases of the Firestone Tire and Rubber Co. of Akron, Ohio.

T. W. SWAN, formerly secretary of the Mohawk Carpet Mills, Amsterdam, N. Y., will return late this month from a sojourn in Europe.

CHARLES A. ROOT, treasurer of the Uxbridge (Mass.) Worsted Co., Inc., and Mrs. Root, accompanied by STANLEY H. WHEELOCK, president and treasurer of the Stanley Woolen Co., also of Uxbridge, and Mrs. Wheelock, are on a two weeks cruise on Mr. Root's yacht, "Toorac" through the Lake George, N. Y., region and the Thousand Islands.

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FRANCIS O. MCDEVITT will join the executive staff of the Potomska Mills, New Bedford, Mass., on Sept. 1 according to official announcement. He will assist Charles E. Brady, treasurer of the corporation in merchandising the product.

HOWARD K. DILTS, former advertising manager for the Graton & Knight Co., Worcester, Mass., since located in Atlanta, Ga., as a captain in the U. S. Army, will sail from New York in September for Honolulu, where he will be stationed.

S. I. PARKER, who has been with the Proximity Print Works for 11 years, the last four of which he has served as assistant superintendent, has tendered his resignation, effective Sept. 1, when he will become superintendent of the Clearwater Mfg. Co.'s plant at Clearwater, S. C. The Clearwater company is a subsidiary of the United Merchants & Manufacturers, Inc., with headquarters in New York City, and textile plants in various locations, three of them being located near Clearwater. The Clearwater company prints the cloth made by the Seminole, Arkwright and Langley mills, which are owned

Newly Elected Vice-Presidents of Industrial Rayon Corp.

A. A. Murphy, vice-president in charge of sales

H. B. Klein, vice-president in charge of plant operation

by the United Merchants & Manufacturers, Inc. Mr. Parker is a graduate of the University of North Carolina, in 1917.

MORTON PEARLSTINE, formerly of Philadelphia, has been appointed superintendent of the Ellis Silk Hosiery Co., of Charlotte, N. C. Mr. Pearlstine stated that as soon as the new machinery is installed and put in operation, the plant, which now employs 40, will increase its force to 200 persons.

HERBERT R. MAUERSBERGER, formerly of Cox, Fuller & Mauersberger, consulting textile specialists, New York, has joined Celanese Corp. of America in its dyestuffs division. He had been connected with the textile consulting firm for some time.

C. D. BOLING, who for the last 35 years has been superintendent of the mechanical department of the Richland Mills of the Pacific Mills, at Columbia, S. C., has been made superintendent of the mechanical department of all the plants of the Hampton division of the Pacific Mills, and his brother, A. C. BOLING, who for more than 30 years had assisted C. D. BOLING at the Richland Mills, has been appointed supervisor of machinery in the Richland and Capital City Mills, at Columbia.

H. W. SUNSHINE, superintendent of the Hadlee Silk Mills, Paterson, N. J., has resigned effective Aug. 27. Mr. Sunshine has not matured his future plans, but in the meantime will take a brief vacation.

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R. E. HARRISON has severed his connections as assistant manager of the market analysis department of the Mohawk Carpet Mills, Amsterdam, N. Y., in order to take an executive position at the Philadelphia branch of the company.

R. E. SMITH, JR., recently graduated from the North Carolina State College, at Raleigh, is now with the West Point Mfg. Co.

W. H. GIBSON, JR., formerly manager and superintendent of the Aileen Mills, of Biscoe, has been appointed as assistant general manager of the Mansfield and Jennings Cotton Mills, of Lumberton, N. C.

R. P. DEAL has resigned as manager of the Deep River Mills, of Randleman, N. C., effective Sept. 1.

J. E. HEDD, general manager of the Cellophane division of the Du Pont company, and F. P. SMITH, director of Cellophane production for the Du Pont company, both of New York City, and H. O. THAYER, superintendent of the Du Pont plant near Richmond, Va., attended the recent opening of the Cellophane plant of the Du Pont company, at Old Hickory, Tenn., near Nashville. L. L. LEACH, formerly connected with the Buffalo (N. Y.) plant, is in charge of the Old Hickory plant.

F. VAN DERZEE, cotton exporter of Alexandria, Egypt, is visiting Memphis and other southern cotton exporting cities.

GUY W. HUNTER, formerly assistant sales manager of Cheney Brothers' cravat department, New York, has been made sales manager of the cravat division, South Manchester, Conn., to succeed J. CLARK BAKER.

ERNEST VANSTONE, for the last 2½ years head of the calender department for the Dutchess Bleachery, Inc., at Wappingers Falls, N. Y., has resigned to accept a similar position with Acme Finishing Co., at Pawtucket, R. I., and left this week to assume his new duties. His family will move to Pawtucket later. Previous to locating at Wappingers Falls he was identified with several textile plants in Massachusetts.

HENRY B. PUCKETT, assistant treasurer of the Goodyear (Conn.) Cotton Mills, Inc., is on a trip to Ohio.

W. E. TARRANT is now head of the weaving and designing department of the new Textile School of the Alabama Polytechnic Institute, Auburn, Ala.

R. F. MURRY, who has been second hand in spinning at the Mauney Mills, Kings Mountain, N. C., has been promoted to boss spinner at the same plant.

B. P. JACKSON has been promoted to overseer of the twisting department of the Mauney Mills, Kings Mountain, N. C.

CHARLIE WINDHAM has been appointed card room overseer of Mill No. 2, American Cotton Mills, Inc., Bessemer City, N. C.

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JAMES D. CLARK, assistant superintendent for the Ware (Mass.) Mills of the Otis Co., and family, are passing a two weeks' vacation at Madison Beach, Conn.

THOMAS ODELL, Blackstone, Mass., has accepted the position of overseer of the carding department of the Agawam (Mass.) Co.

J. F. SENTEL, Fayetteville, N. C., has become overseer of carding at the Borden Mfg. Co.'s plant at Kingsport, Tenn.

ALEXANDER R. STEVENSON, former overseer of dyeing for the Bigelow-Sanford Carpet Co., Clinton, Mass., is incapacitated by injuries sustained in an automobile accident at Clinton, Conn., recently.

ROBERT R. WALLACE, employment supervisor for the American Steel & Wire Co., Worcester, Mass., and Mrs. Wallace are on a motor vacation trip to Louisville, Ky.

J. T. BARNES, former overseer of the cotton carding department of the Thorndike Co., West Warren, Mass., has moved his family to Greenville, N. H., where he has accepted a similar position at the Columbian Mills of the Otis Co.

WILLIAM FLANAGAN, overseer of the twisting department of the Rockdale mill of the Paul Whitin Mfg. Co., Northbridge, Mass., and family are passing their vacation in Cohoes, N. Y.

WILLIAM A. SPRATT, assistant paymaster for the Paul Whitin Mfg. Co., Northbridge, Mass., is on a motor trip to Canada, as part of his vacation.

JOHN J. LONERGAN, paymaster for the Slater Mills, Inc., Webster, Mass., and Dorilla Gevry, also of that town, were married in Sacred Heart Church, Webster, on Aug. 25.

J. H. CLARK, head of the spinning department of the Borden Mfg. Co., Goldsboro, N. C., has resigned.

BERT KISER is now yard foreman, ED WINTERS has charge of the plumbing and RAY FELTZ is electrician at the plant of the Sherman (Tex.) Mfg. Co.

CONRAD STAGGS is now second hand in carding at the Sherman (Tex.) Mfg. Co.

J. N. JONES has resigned as seeond hand in the spinning room of the Loray plant of the Manville-Jenckes Co., Gastonia, N. C.

L. C. VINCENT, who was for a number of years card grinder at the Edna Mills, Reidsville, N. C., has taken a position with the Roanoke (Va.) Mills Co.

DEE NEWMAN is now second hand in weaving at the Sherman (Tex.) Mfg. Co.

NEWS about MILLS

Cotton

Sibley Mfg. Co., Augusta, Ga., has awarded contract for remodeling interior of office building, at a cost of $10,000 to Branch & Smith, local builders.

Hoffman Lion Mills Co., Inc., Fall River, Mass., recently formed with a capital of $50,000 to operate a local cotton mill, will be represented by Norman C. Small, 38 Hillside St., Fall River, treasurer of the new company. Frank E. Hoffman is president.

Whitman Mills, New Bedford, Mass., will be closed down inside of two months, unless there is a change in policy within the next few weeks. George W. Pope, treasurer of the corporation, has announced that employees are being laid off just as soon as the work in their respective departments is run off the machines.

Gaston Mfg. Co., Cherryville, N. C., was damaged by severe wind and rain storm. A part of the brick side wall was blown in. Damage was estimated at several thousand dollars.

Wildan Mfg. Co., of Cherryville, N. C., has installed new combing equipment.

Falls Mill No. 2, Granite Falls, N. C. Following the merger of the Southern Mfg. Co., and Falls Mfg. Co., W. E. Poovey, superintendent of the group of mills has just returned from Fall River and Easthampton, Mass., where he purchased $30,000 worth of additional machinery which will be placed in Falls Mill No. 2 which is the new name for the Southern mills. The machinery purchased included 12 combers, 4 lappers, 15 deliveries of drawing, 32 cards, 6 speeders and cleaning and picking machinery.

Kinston (N. C.) Cotton Mills may be reopened, according to an announcement made here. Local business men are interested. This plant has not operated for several years.

Lily Mill and Power Co., Shelby, N. C., has had its old oil spraying equipment replaced with Borne Scrymser Co.'s 1930 model.

Cross Cotton Mills Co., Marion, N. C., is making a number of improvements, including the repainting and reconditioning of houses and the installation of the Firth system of vacuum cleaners.

Marion (N. C.) Mfg. Co. is adding a third additional floor and will, it is said, install additional machinery.

Lola Mfg. Co., Stanley, N. C., has discontinued night work for a while, and arrangements have been made for the former night shift to alternate with the day time force and give each shift a week of work and a week of vacation. This is the first time the employees have lost any time.

*Indicates previous mention of project.

Delgado Mills, Wilmington, N. C. T. R. Ames, who has been for some time secretary of the Delgado Mills, has been made temporary agent of the receivers. The company was recently placed in the hands of H. M. Corbett and J. H. Davis, both of Wilmington, as receivers by Judge F. A. Daniels, of the Superior Court at Goldsboro, N. C., following application of the Hyman Supply Co., of Wilmington.

Amoskeag Mfg. Co., Manchester, N. H., will shut down Aug. 29 and resume work Sept. 2. The customary two weeks' vacation was abandoned this year and an extra day substituted over the week end.

Utica Steam and Mohawk Valley Cotton Mills, Utica, N. Y., began operations on Aug. 18 on a full-time basis after a shutdown of two weeks. The company operates two plants, employing more than 1,200 persons. Company officials state that prospects for continued operations are bright.

Watts Mill, Laurens, S. C., has installed additional cards and combers and overhauled the card department.

Aragon-Baldwin Cotton Mills, Whitmire, S. C., are reported to have concluded arrangements for the sale of their electric distributing system there to the Southern Public Utilities Co., of Charlotte, N. C. The plant is now operating 52½ hours a week, day time, with no night work.

Tellico Cotton Mills, Tellico Plains, Tenn., which has not operated for several years, and which was recently acquired by the Callaway interests of La Grange, Ga., is now undergoing repairs and being put in shape for operation. It has been relieved from town taxes for a period of 5 years, it is understood.

Carolina Cotton & Woolen Mills Co., Fieldale, Va., after giving their employees a two weeks' vacation during the very hot weather, has resumed operations.

Wool

Pueblo, Colo. B. J. Summerhays, who is representing eastern interests was a recent visitor to Pueblo, and rumors are afloat that sites for one or more woolen mills in that section is the objective. A conference between the eastern men and the Chamber of Commerce of Pueblo will probably be held in Pueblo about Sept. 1. The location of mills at Pueblo would, it is argued, save freight costs on the raw material by handling the wool closer to its source.

Sunnybank Worsted Mill, Holyoke, Mass., men's wear, has put on a night shift. Thirty looms have been installed and from 45 to 50 persons are employed.

Thayer Woolen Co., North Oxford, Mass., is operating its Lancaster mill on a five-day-a-week schedule.

Ware (Mass.) Woolen Co., has rented its former weave shed to the B. G. Luther Co., Worcester, Mass., builder of machinery, which is moving from the latter city.

John F. Norman Co., Inc., 400 Madison Ave., New York, has awarded general contract to the Austin Co., 120 Broadway, New York, for proposed carpet mill on tract of land recently secured at Linden, N. J., to be one-story, 142x229 ft., estimated to cost over $100,000, with equipment. Warren & Wetmore, 16 East 44th St., New York, are architects.

Hiram Leach & Co., serge manufacturers at Bradford, Eng., have formed a Canadian branch known as Hiram Leach & Son, Canada, Ltd. They have taken a ten-year lease of premises at Huntingdon, Que., and will transfer 60 looms with auxiliary machinery and 36 operatives, mainly weavers, burlers and menders, and their families from Eccleshill and the idle districts of Bradford. The firm also plans on building a number of houses for their employees. The Boyd & Co. foundry is now being remodeled for the new firm.

Knit

Aycock Hosiery Mills, Bridgeport, Ala., is closing its Bridgeport plant indefinitely, according to an announcement made by G. R. Cook, poor business conditions being given as the cause. The machinery of the plant may be dismantled and removed to a plant of the company at South Pittsburg, Tenn. This plant has 100 knitting machines.

Blytheville, Ark., Chamber of Commerce is considering a proposal for the establishment of a full-fashioned silk hosiery mill to employ about 100 persons. It is reported that the plant will be constructed at Blytheville provided the citizens there will subscribe $20,000 of first preferred stock in the new concern, the stock to be fully guaranteed by the assets of the concern and to be first claim on any earnings.

Coopers, Inc., Los Angeles, Calif., has announced plans for the construction of a $2,000,000 factory, employing 300 persons as the initial pay roll and beginning operations by Jan. 1, 1931. Four sites for the Pacific Coast manufacturing plant are under consideration and final choice will be made early next month on the arrival in Los Angeles of Robert S. Cooper, president. Two plants are operated by the organization. One is located at Kenosha, Wis., the other at Mainstee, Mich., and the products are distributed through branches located in New York, Chicago, Dallas, Los Angeles, San Francisco and Seattle. The company makes men's and boys' knit and woven underwear and also pajamas. Blow Grower, vice-president, will be manager of the western division. Proximity to Hollywood as a men's style center is given as an important reason

in selecting the location of the company's Pacific Coast plant.

Lenawee Textiles, Inc., Adrian, Mich., will begin immediate production in their new mill unit on Treat St., recently completed, and expect to develop full capacity at an early date.

Corinth (Miss.) Hosiery Mills. About 20 contractors have submitted sealed bids for the construction of the Corinth Hosiery Mills to be opened in the Chamber of Commerce building on Aug. 28. The building will be one story, brick walls, steel frames, concrete foundation, with maple floors and steel sash. The plant will be equipped with a sprinkler system.

Perry Knitting Co., Mount Morris, N. Y., has been making improvements in equipment at local mill, changing machines from the first to the second floor, where additions have been made to the working force. Further increase in production is expected at an early date.

McLoughlin Textile Corp., Utica, N. Y., has awarded contract for construction of a new warehouse which will be completed early in the fall.

Golden Belt Mfg. Co., Durham, N. C., has just completed the installation of 10 new full-fashioned silk hosiery machines, making a total of 106. The plant is being operated on a schedule of four days and four nights each week.

Shuford Hosiery Mills, Hickory, N. C. A new building now houses the recently consolidated **Conover Knitting Mills,** of Conover, N. C., and the **Longview Knitting Mills,** of Hickory, under the new name of Shuford Hosiery Mills.

Sterling Hosiery Co., Spindale, N. C., has been chartered to buy, sell, manufacture and deal in textile materials of all kinds. Authorized capital stock is $50,000; subscribed stock $175; incorporators, S. B. Elmore, G. B. Howard, and C. L. Miller, all of Spindale.

Argus Knitting Mills, Lebanon, Pa., are investigating conditions at the White Rock Mill, Westerly, R. I., to determine manufacturing possibilities. The Westerly property is owned by the Knight Finance Co. and has been idle a number of years.

Bristol Made Hosiery Co., Philadelphia, Pa., care of Williamson & Williamson, 1321 Arch St., Philadelphia, attorneys, recently organized under New Jersey laws, is said to be planning early operation of a knitting mill at Bristol, Pa. J. R. Boyd, Philadelphia, is one of the incorporators.

***Richland Knitting Mills,** Robesonia, Pa., having completed the construction of their modern new factory building are entirely moved from their former building, have all the machinery placed and in operation and are running with a greatly increased production.

Rosedale (Pa.) Knitting Co. has gone on a 10-hour day and a 5½-day week according to W. C. Bitting, president, with prospects of being able to continue the schedule for some time.

Bear Brand Hosiery Co., Beaver Dam, Wis., has awarded a contract for painting in new four-story mill, 85x99 ft., now in progress, to Albert Hauer & Son, Inc., Fond du Lac, Wis. General contractor for the structure is the Immel Construction Co., 19 West Division St., Fond du Lac. It is expected to have the unit ready for occupancy at an early date.

Portage (Wis.) Hosiery Co. has awarded a general contract to Kutzke & Sons, Portage, for a top addition to present two-story warehouse unit, 60x120 ft., to cost about $25,000. Livermore & Barnes, 2 South Carroll St., Madison, Wis., are architects.

Model Knitting Co., Ltd., Toronto, Canada, have let contract for a new loft building at 179-181 John Street. Plans provide for a 90 x 113 ft. building, of mill and steel construction with mastic floors. It will be seven stories and basement. It will cost $200,000 and will be ready for occupancy in October.

*Indicates previous mention of project.

Silk

William Skinner & Sons, Holyoke, Mass., closed their mills Aug. 21 until Sept. 8. There is talk of extending the period of shut-down because of a let-up in demand for silk linings.

Ralway Silk Co., Yorkville, N. Y., is now running on full time schedules with additional workers.

Hawthorne Silk Mills, Fayetteville, N. C., will shortly increase number of employees from 260 to 420, it was announced by M. E. Binz, head of the M. E. Binz & Co., Inc., New York, owners and operators of the plant. In addition to this expansion, a sewing department employing about 60 women on the making of hot linings will be established, it was stated.

***Katterman & Mitchell Co.,** Stanley, N. C., is said to be arranging for the immediate resumption of operations on a 60-hour week schedule, following a 30-hour week schedule for about a month past.

Eastern Canada Silk Co., a concern which was formed some months ago to erect a complete silk mill at Sherbrooke, Que., has been adjudged bankrupt, and a receiving order made for the company. The plant site comprises about 10 acres and the building to be erected was to be of the most modern type. The company was capitalized at over $1,000,000.

Rayon

***Du Pont Rayon Co.,** Buffalo, N. Y., has begun production in the second unit of its new mill at Old Hickory, Tenn., giving employment to about 400 men and women. The unit is not entirely completed. Maximum capacity will begin at an early date.

Raylaine, Inc., Asheville, N. C., has been formed for the manufacture of a newly invented synthetic textile fiber. The product will be called Raylaine. G. Nean Nord is inventor of the fiber and designer of the machinery necessary for its manufacture and is president of the corporation. Lawrence S. Holt, Jr., member of a family long prominent in textile manufacture in the South, is chairman of the board of directors. Other Asheville members of the board are financial and industrial leaders, including Harmon A. Miller, Curtis Bynum, Alexander McLean and D. Ralph Millard. Construction of the first unit is to start within 60 days and the cost is to be $500,000. A site has been purchased adjacent to Biltmore station. Operation is promised by early in 1931. Both the manufacture of yarn and fabric will be provided for. The process and the materials have not been made public. Uses of the fabric are said to be many, including upholstery for automobiles and furniture, summer clothes for men and women, golf hose, rugs, draperies, felts for women's hats, etc.

Finishing

Kerr Bleaching & Finishing Works, Concord, N. C., will replace the loss sustained in a recent fire.

North Carolina Finishing Co., Salisbury, N. C., has awarded a contract for the erection of two warehouses and for remodeling and enlarging the bleachery.

Schulze Dyeing Co., Inc., Reading, Pa., is named in a bill in equity filed by William Schulze and Emil O. Schulze, asking for the appointment of a receiver. The bill states that William Schulze, treasurer, is a creditor of the defendant company for money advanced to it for the purpose of carrying on its business, and that there is due him $9,600. Emil O. Schulze, president, states that he is a stockholder, being the owner of 220 shares of capital stock.

Miscellaneous

Ludlow Mfg. Associates, Ludlow, Mass., has established a 36-hour week for its employees. On this basis it is proposed to employ a full force for six days a week. The regular day force will start work at 9 a.m. and quit at 3.30 p.m., 30 minutes being allowed for luncheon.

Camden (N. J.) Mattress Mfg. Co. has been formed with a capital of $100,000, to take over and succeed to the **Camden Mattress Co.,** with local mill. Incorporators of the new company include Henry M. Dellerson and Charles Berkowitz, both of Camden.

National Automotive Fibres Co., Little Falls, N. Y., has moved its office departments to the Cohoes branch and it is said that eventually the entire equipment will be transferred.

Bremerton, Wash.—Endorsement of a plan to provide for a flax plant for the manufacture of linen and hemp products here was given Aug. 6 by the Bremerton Chamber of Commerce directors, the plan entailing the investment of $135,000 by the promoters and a like investment in the form of stock payments by Kitsap County people. It is a desire of the promoters to construct their plant at once and import their flax here until such time as it may be raised in this district.

Oregon Linen Mills, Salem, Wash. The board of directors held a meeting in Salem to consider financing problems that threaten a permanent shut-down of the plant despite orders on file. There is talk of consolidating the Oregon Linen Mills at Salem with the Pacific Coast Linen Mills, Vancouver, to operate jointly.

Questions and Answers

We undertake to answer, free of charge, to the best of our ability, questions pertaining to textile matters received from any regular subscriber to TEXTILE WORLD. We do not undertake, however, routine analysis of yarn or fabric, or investigation involving unusual expense.

Inquiries should give the fullest information and data possible. In the case of damage to material, a sample should be sent. All inquiries must be accompanied by the name of the person inquiring, not for publication, but as evidence of good faith. The identity of those seeking information on technical subjects will not be disclosed.

Letters expressing opinions or voicing criticism are cordially invited. These will be signed by the correspondent's name unless the letter itself contains a request that the name be withheld.—EDITOR.

Warping Rayon in Worsted Mills

Technical Editor:

I am contemplating the manufacture of suiting using rayon stripes, cotton warp, and worsted filling. The rayon is 150/2 denier in this case; and the cotton, 26/2, blended. Is it possible to warp on section beams and slash, or must I use the horizontal warpers common in silk mills? (7229)

The method generally used in preparing warps of this character depends to a considerable extent upon the dressing equipment in the mill; that is, if the equipment of a manufacturer going on to this class of goods includes beam warpers and slashers, he will probably prepare his warps on them rather than purchase a silk warper. In a rayon-stripe suiting the percentage of rayon may not be great enough to warrant a silk warper. There is no reason why a warp of this kind cannot be dressed on a cotton slasher.

Perhaps you intend to warp your rayon from a beam placed in the back of the slasher creel. In this case the ends should be drawn from this beam over the others and the rayon kept separate until the sheet enters the size vat. In some cases it is an advantage not to run the rayon under the immersion roll, but only under the squeeze rolls. One of the largest manufacturers of Palm Beach cloth buys his warps from a cotton-warp mill, and this mill prepares the warps in a manner similar to the one we have described.

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Setting Rayon Crepe Twist

Technical Editor:

What preparation is used on rayon crepe yarn to se the twist? (7258)

It is very difficult to recommend a preparation to be used on rayon crepe-twisted yarn. In the first place, it is not considered absolutely necessary to have a preparation on the yarn in order to set the twist. Twist-setting can be accomplished through the action of steam at 150 to 160°F. in a steam chest or box. Another possible means is the use of cold-water immersion. However, we believe the steam setting is most extensively used among the throwsters at the present time.

The preparation of the yarn for twisting and subsequent setting is usually accompanied by some type of sizing material or pre-treatment. There are a good many recognized crepe size preparations on the market, and there are also successful methods in operation which utilize preparations made up by individual concerns from starch or gelatine base with some type of softener. Granted that these preparations, due to their semi-adhesive nature, aid in the setting and holding of the high twist, it is not absolutely necessary to use them on the rayon in order to set the twist.

Some concerns use emulsified oils or other softening preparations in pre-treating the yarn for high twisting. These preparations have their major function in assisting in the high-twisting; and although they subsequently aid in setting the twist, they are not absolutely essential from the twist-setting standpoint.

We shall now describe in detail a method for making rayon crepe without special setting of the twist. The twist can be set automatically as part of the operation, and we show in Fig. 1 a sample loop of twist to prove that it requires no setting. The method used is hard to improve upon, either from a standpoint of economy or simplicity.

Silk-soaking equipment is used for this method in rayon-crepe departments. A rayon-throwing cream is employed which is made of emulsified cocoanut oil, soap, stearic acid, and gum. To this is added additional amounts of rayon size, depending upon the denier being thrown. The same amount of throwing cream is always used, but the amount of the size is varied. This is because the size sets the twist in this process, and it takes more for 150 denier than it does for 75 denier.

The skeins of rayon are prepared just the same as silk; that is to say, the bundles and skeins are opened up

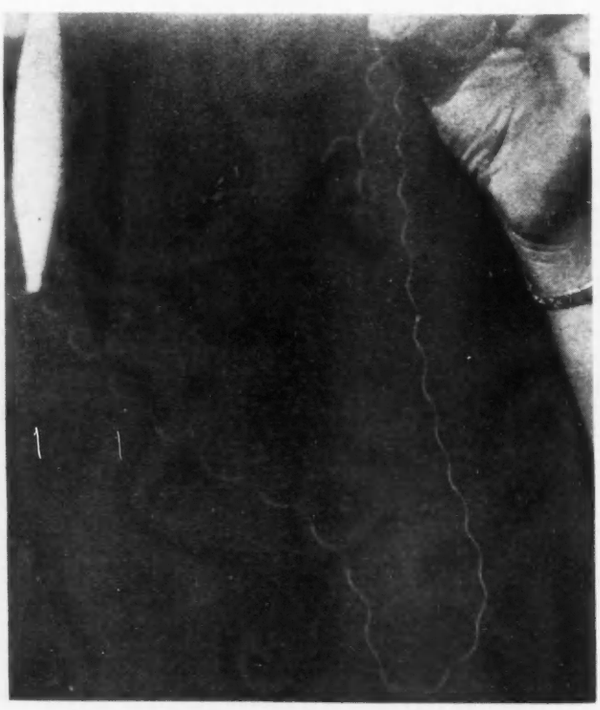

Fig. 1. This loop of rayon crepe shows that no special setting of the twist is required

and the skeins are tied at each end. A bundle of ten skeins is made up. It is soaked in lots of about 150 lb. of rayon. This just covers the rayon with solution in the size of tank commonly used. Of course tanks of different shapes take different amounts of solution. Ten pounds of throwing cream are placed in a 5-gal. tank. While this is stirred, 3 gal. of hot water, 150° F., is poured in. This is stirred into a smooth paste and then poured through a cheese-cloth strainer into the soaking tank. The tint, previously dissolved, is added. For 75 denier, 1½ lb. of rayon size dissolved in water is added; and for 150 denier, 2½ lb. of size.

The bath is stirred, the balance of the water is added, and the temperature is adjusted so the bath is between 130° and 140° F. The rayon is then entered and worked until thoroughly wet out. It is then soaked one hour, taken out, and extracted. The skeins are shaken out and hung up to dry. When they are thoroughly dry, they are thrown as usual.

It is found that no setting of the twist is necessary because the size holds the twist and keeps the yarn dead so that it will not kink, curl, or corkscrew. This method gives a very even tint, as you will see from the skein in Fig. 2. This skein has been soaked and is ready to be wound. A slight increase in weight is obtained, which makes it possible to clear the lots satisfactorily.

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Removing Stain from Hosiery

Technical Editor:

Enclosed you will find a stocking which is badly stained from the color in the red stripe. This hose was originally dyed a dark shade. We stripped it by using straight hydrosulfite. The staining occurred during stripping. We want to dye the hosiery a light shade, and with these stains it is impossible.

Can you give us any information as to how this lot should have been handled, and also information as to the removing of these stains? It would be satisfactory to remove all of the color from the stripe if necessary. The goods were sent to us to be redyed, and therefore we do not know what dyestuffs were used. (7241)

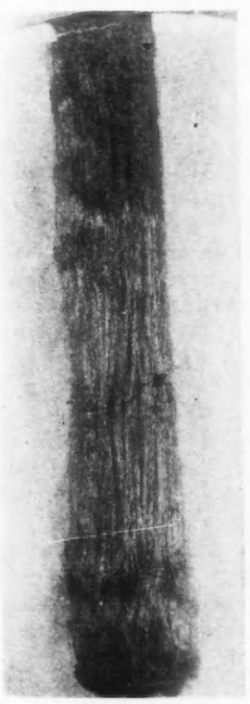

Fig. 2. Note evenness of tint

We have examined the stocking which you advise us was formerly a dark shade and which you have stripped preparatory to redyeing a lighter shade. Although the picot edge was dyed with a fast color, evidently the stripping bath was sufficiently strong and severe to reduce and loosen this color to the extent that it bled and marked off. We tried a number of experiments which cleared the stain to a certain degree, but we could not remove it completely. The experiments were as follows:

THOUSANDS of inquiries are handled annually by the Technical Editors. In order that as many readers as possible may benefit from this service, we select problems of general interest for publication each week.

We gave the stocking a scour, using 10% of a good neutral soap and running the goods at a boil for one-half hour. This scoured off much of the loose color. In its present condition this color seems to be in a finely divided precipitated state, held in the goods almost mechanically, rather than in a true dyed state. We think that this soaping did as much good as any of the tests.

Our next experiment was to see if we could oxidize the color and change it to a colorless state. This experiment consisted of impregnating the goods with a 5% potassium-permanganate solution for five minutes. The goods were then rinsed and worked in a dilute solution of sodium busulfite to remove the brown permanganate color. This treatment apparently did no good at all.

The next step consisted of trying to reduce the color with hydrosulfite. We did this hoping that the oxidation with permanganate might have changed the structure of the red color so that it could be reduced and destroyed. We placed the stocking in a solution of sodium hydrosulfite and acetic acid at a temperature of 160° F. We brought this bath to a boil slowly and watched the goods through the glass sides of the beaker. Just before the solution boiled we noticed that the color of the stocking was very much lighter and that most all the stain was gone. To assist the reaction and speed it up, we boiled the solution. This, however, did no good, and in fact, it bled a little more color out of the edge. Finally we tried to improve the color by treating in a dilute bath of sodium hypochlorite, but results were unsatisfactory.

We are of the opinion that the best that can be done with this lot is to give it a good heavy soaping with neutral soap to remove as much of the loose color as possible, and then to strip the goods again, using plenty of stripper and acetic acid, but keeping the temperature below 180° F. If possible, this should be done in a paddle machine, so that the reaction can be watched and stopped as soon as it proceeds far enough. Finally the goods should be washed thoroughly.

When future lots are to be stripped, we advise using the regular amount of hydrosulfite, but the bath should be held at lowest temperature that it will stay active.

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Oil Used in Silk Soaking

Technical Editor:

Find enclosed a small skein of silk. If possible, we should like to learn the kind of oil used in the soaking bath and the formula for applying it. If unable to give us this information, possibly you can supply us with a formula that will give us just as good results in getting the twist as we get from the silk from which this sample was taken. (7264)

It has been very difficult for us to check on the soaking oil used to process this lot of silk, because the sample

was so small. It weighed a little over four grams. We have applied our system of "check and double check," and the answers agree very closely.

In the first place, we ran an ether extraction on the silk for six hours to remove all the oil. We found 8.11% of oil. There was not enough on which to run any very elaborate tests to determine the nature, but from its odor and color, we think that it was neatsfoot and some vegetable, probably olive or cottonseed oil.

We next ran a water extraction on the silk, combining the oil removed with the ether extract. This was treated with acid to separate the oily matter from the balance. This total oil, as extracted by water and ether, was the same as the ether extraction alone. From this we concluded that there was no soap used in making up the soaking bath. The soaking material was evidently a soluble soaking oil predicated on a neatsfoot oil base. In order to check this, we oxidized the water residue and ran a sulfate determination. This figure of the sulfates corresponded to the amount of organically combined SO_3 found in 8¼% of some of the common silk-soaking oils. Most of these oils are a mixture of 50 to 60% highly sulfonated oil and 50 to 40% raw neatsfoot oil.

A boil-off on the silk showed slightly over 25%. If this is a white Japan raw silk, and we think that it is, this would mean that soaking the silk had made it take up 8% of the soaking material, assuming that the raw boil-off was 17%. This, you will see, agrees very closely with the oil removed from the silk.

We took the oil residue and ran a saponifiable determination on it, which revealed the fact that the oil was all saponifiable; in other words, there was no mineral oil in the soaking oil.

To figure the soaking formula from this data is rather simple. We know that most of the soluble silk-soaking oils have a take-up value of from 40 to 60%. This means that in order to have a boil-off of 25% on a lot of silk with a raw boil-off of 17%, it is necessary to use about twice as much oil in making up the soaking bath. In other words, we believe that about 16 to 17 pints of oil was used to soak this lot of silk. We feel that this silk should be soaked at a temperature of 80°F. over night, using about 80 gal. of water for each 100 lb. of silk.

We felt that it was necessary to conserve all the silk for these tests and therefore did not use any to determine the twists per inch, etc.

The soaking oil, if it be the right kind and used correctly, will make a better yarn and provide better running conditions in the mill, but this does not predetermine the setting of the twist. The setting of the twist may be done by soaking in cold water and drying in a heated room, by steaming, or by the use of a vacuum system. All three of these methods can be made to work equally well, and the results lie with the person in charge.

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Bathing-Suit Fabrics Shrink

Technical Editor:

The enclosed swatches of jersey are being delivered to us as "supershrunk." We have been using the jersey in bathing suits, and we are receiving complaints of the suits shrinking after being in water. Kindly advise us the cause of this. (7263)

We have examined the blue and brown jersey fabric which was reported as supershrunk. We have taken swatches of these fabrics, measuring 4.5 by 6 in.; and wet them out for one-half hour in water at 68°F. We hung them up wet and allowed them to dry in the air. Our object in doing this was to duplicate what a purchaser of a bathing suit would do when the garment was worn in the water.

After this treatment, we found upon measuring the blue piece that it was 4.25 by 5.37 in. This showed that it had shrunk in width 10½%; and in length, 5½%. This was wet out a second time in the same way, and after drying was 3¾ by 5 in. This showed a total shrinkage which would correspond to the shrinkage obtained in a bathing suit, when it was worn in the water twice, of 16⅔% in length and 16⅔% in width.

The fabric was wet out a third time, and after drying it was found that it was the same size as when dried after wetting the second time; namely, 3¾ by 5 in. In other words, no more shrinking was obtained after the second wetting out. The fabric had shrunk its limit and no subsequent wetting would cause it to shrink any more.

The same tests were applied to the brown, and this did not shrink quite as much as the blue. On the first wetting out at 68°F., the brown shrank from 4½ by 6 in. to 4¼ by 5½ in., or 5½% in length and 8.33% in width. We wet out the sample a second and a third time. A constant measurement was obtained after the second wetting out. This was 3¾ by 5¼ in., and represents a total shrinkage of 16⅔% in length and 12½% in width.

The fault, as we see it, lies in the drying of the goods after finishing. These goods are evidently scoured and given a light fulling, probably by running the scoured and hydro-extracted goods in a fulling mill without soap They are then dyed. During the drying which follows, the goods have evidently been put on a spreader dryer that is too wide. In other words, the spreader is wider than the natural width of the fabric.

In finishing a majority of knit tubular goods, this method of drying is considered good practice. That is to say, the goods are stretched in drying from 2 to 5 in. beyond the natural slack width of the goods. This gives the fabric a smoothness that improves its appearance.

In cases of this kind, where the goods must be shrink-proof, two methods of procedure are open. One is to dry the goods the natural width; that is to say, without any stretching. This method would call for a very fine control of the goods in all processes if a uniform width is to be maintained. The other method is a sponging or wetting out and drying at the natural width. This method is used by tailors and some garment manufacturers. It would consist of wetting the goods out in cold water and hanging them up to dry. This could be done by festooning them from wooden pins. In this way they would dry without tension. This should be done twice to be sure that all the shrink has been taken out of the goods.

Either of these methods would produce a fabric with slightly more bulk and give the goods a softer, thicker handle. It would make the surface slightly rough. This could be eliminated in the final pressing and finishing of the bathing suit. If either of these methods cause inconvenience in cutting, the fabric could be pressed without tension on the garment presser.

Ordinarily, woolen fabrics are rendered shrink-proof by a treatment with chlorine before dyeing, but the finished garment will still shrink if the fabric is stretched out wider than the natural width during the drying.

We are returning to you the samples that have been wet out three times and dried without tension.

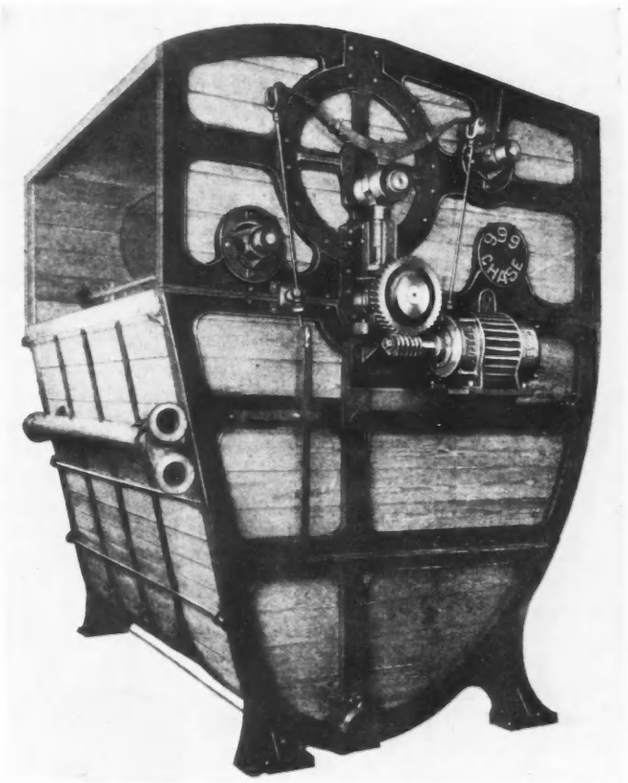
New Machinery & Processes

Up-Stroke Twister

WHITIN KOHORN CO., INC., 342 Madison Ave., New York, has announced recently an improved up-stroke twister designed exclusively for the rayon trade. An outstanding feature of this Model K machine is the high-speed spindle, which is designed to take care of any unbalanced condition of the spools, and is capable of operating with large packages at speeds as high as 10,000 r.p.m.

To make possible the use of this spindle, and to eliminate vibration, the frames of the machine are of special construction. Driving of the spindle is accomplished by means of tapes, four spindles to each tape. The tapes are driven by a specially constructed laminated-tin roller running on S.K.F. ball bearings.

Variation of twist is readily accomplished; and to permit efficient spindle speed with different sizes of yarn and twists, spindle speed is adjustable. A traverse motion of new design likewise is adjustable to meet the speed requirements. The traverse motion and change gears for take-up roller speeds, traverse speeds, and spindle speeds are housed in the head-end driving frame. The twister is equipped with cut gears, and all moving parts are oiled automatically. Drive is by direct-connected motor, while S.K.F. ball bearings are used with all major driving parts in the head frame.



Cloth washer

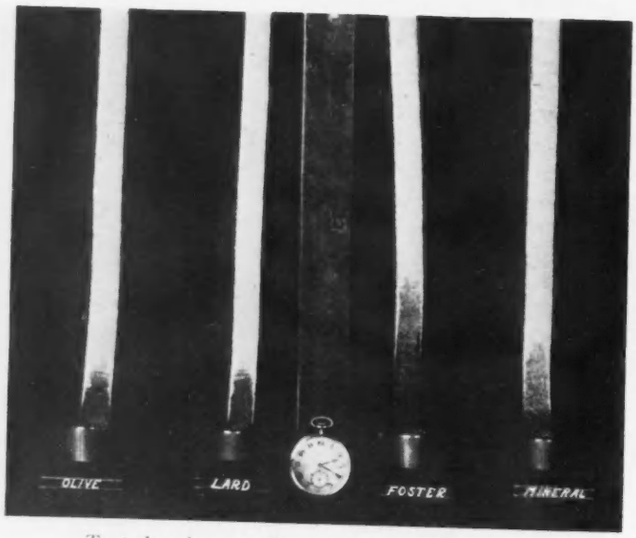
Washing and Scouring Machine

SEVERAL new and exclusive features are embodied in a scouring and washing machine placed on the market recently by Chase Turbine Mfg. Co., Orange, Mass. This Model 999 silent electric washer is designed for washing and scouring wool, cotton, and rayon fabrics, and also for bleaching cotton and rayon by the continuous method. It is suitable for handling light-weight fabrics as well as heavy woolens and worsteds.

One of the unique features of the washer is the one-reduction motor drive. The drive consists of a steel worm fitted to the motor shaft, which in turn runs a chilled-bronze gear on the bottom-roll shaft. This arrangement eliminates the necessity for countershaft, friction pulley and belt, chain or gear drives, or other accessories between the motor and the machine. The motor, which is of the totally enclosed, fan-cooled type, starts from a line switch and has push-button control. Repair costs are said to be greatly reduced by this type of drive.

Another characteristic of the machine is the top section, which is so designed that the main squeeze rolls can be removed and replaced from either end without taking out any part of the top section. The squeeze rolls are made from Vermont rock maple, with heavy steel shafts extending throughout their entire length. The top roll is raised and lowered by means of a conveniently placed handle. A front smooth roll and back cleat roll are both made of gray oak or similar hardwood. The cleat roll is fitted with five cleats to insure even pulling of the goods, and is driven by roller chain and cut sprocket. It is adjustable to high and low position to give the desired pull on the fabric. The suds box is located directly under the bottom roll,

Up-stroke twister



Test showing capillary activity of Fosterol as compared with olive oil, lard, and mineral oil

so as to catch all dirt, grease, and suds squeezed from the goods. It is provided with apertures in the bottom and slide-type lifting gates with hose connection that can be raised or lowered to keep the water in the machine at any desired depth. A drain elbow at the end of the suds box allows the dirty water to be drained off and permits clean rinsing. Provision is made for mixing hot and cold water at either end or for the entrance of live steam for heating the cold water. Brass diffusing outlets force the water on each separate string of goods.

The washer is of sturdy construction with large frame designed to reduce vibration. Hyatt precision roller bearings enclosed in oil-tight housings are used throughout. Standard equipment includes wood pins, but brass pins or porcelain guides can be supplied.

Wool Spinning Oil

FOSTEROL, a new spinning oil for wool, has been announced recently by Foster Finishing Products Co., a division of Jos. R. Foster & Sons, Second, Clearfield and Lippincott Sts., Philadelphia. In offering this product to the trade the manufacturer points out that the thoroughness with which a spinning oil penetrates the body of the fiber is one of the most important factors in the satisfactory spinning of wool and mixed-hair yarns. Speed and depth of penetration, and consequently, the lubricating and scouring qualities of the oil, are governed largely by the manner in which the oil emulsifies. With emulsions having large globules, penetration is usually slow or incomplete; while with those having small globules, penetration is rapid and thorough. Proper lubrication permits an easy slipping of one fiber over another in the course of manufacture, and thus tends to eliminate any unevenness in the yarn.

Speed of penetration may be shown by a comparison of the capillary activity of oils of different types under standard conditions. A simple test to determine capillary activity is to dip strips of fine serge to a depth of $\frac{1}{8}$ in. into an emulsion, and then note the height to which the emulsion climbs the strip in a given time.

The accompanying illustration shows the results of a test in which olive oil, lard oil, mineral oil, and Fosterol were compared. It can be seen that this specially blended product has a much greater capillary activity than the other oils.

In the development of Fosterol, emulsions were prepared—using various emulsifying agents—and were then subjected to the capillary-activity test. The combination which permitted a rise of 6 in. in the shortest time was selected and three grades of the product were developed—one, for use on fine woolens or worsted where whiteness of finished work is imperative; another, for work where color and quality are not so important, and a third, for shoddies and cheap woolens.

The great capillary activity of Fosterol indicates the speed and completeness with which it penetrates the fibers. These properties—together with the readiness with which it emulsifies without the aid of alkalis, its high lubricating value, and the ease with which it can be scoured from the manufactured yarn or fabric—are said to result in a spinning oil of unusual merit.

Dust-Tight Enclosure for Air-Motor Starters

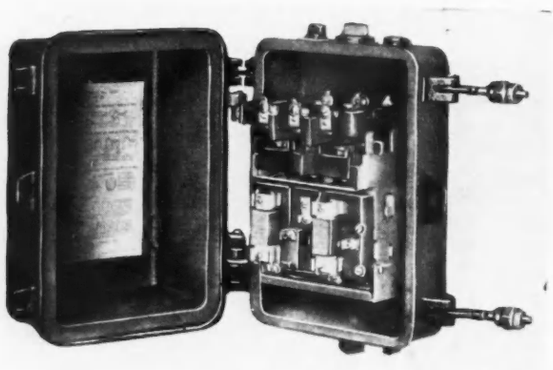
DEVELOPMENT of a dust-tight enclosing case for its line of across-the-line air motor starters is announced by Condit Electrical Mfg. Corp., Boston, Mass. This enclosure is especially adapted for installation in textile mil's, chemical works, and other industrial plants where a large amount of dust or moisture may interfere with the efficient operation of a standard starter.

The new enclosing case is of exceptionally strong cast-iron construction, while a gasket is provided between the cover and the case. Four heavy eyebolts and nuts hold the cover tight. The cover is hinged and provision is made for padlocking it closed. Provision is also made for conduit connections at top and bottom. In addition to being dust-tight, the enclosing case is water-tight and weather-proof.

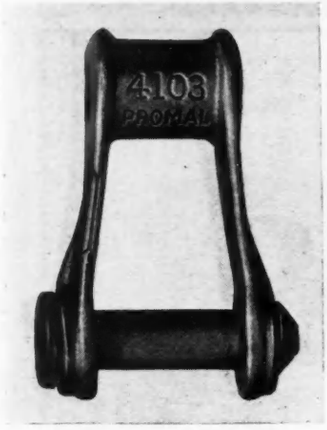
Promal Chains

PROMAL chains for conveying and power-transmitting service under heavy loads or abrasive conditions have been placed on the market recently by Link-Belt Co., Indianapolis, Ind. The chains are constructed of Promal, a chain metal produced by a new method of processing malleable iron. This method, which was developed by Link-Belt Co. as a result of experimentation with cast chain metals, is said to so alter the physical properties of malleable iron as to make it a distinctively new metal.

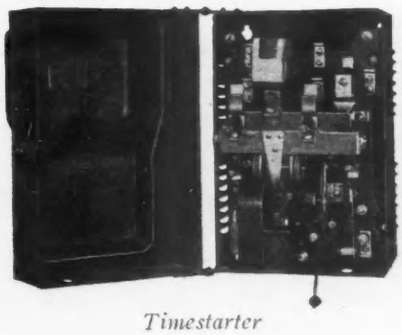
Promal chains are particularly recommended for four classes of service: (1) chain drives, elevators, and conveyors operating under gritty or abrasive conditions;



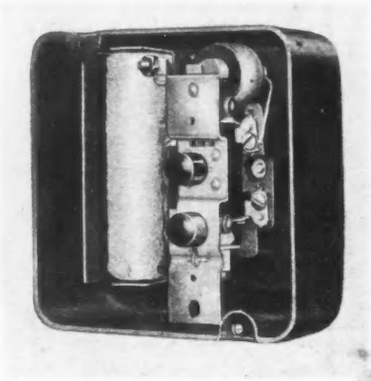
Dust-tight enclosure for air motor starters



Typical Promal chain



Timestarter



Resistor-starter with cover removed

(2) chain drives where greater strength is required than the corresponding size of malleable-iron chain provides; (3) drag, scraper, and flight conveyors where the chain drags and is subject to abrasion; and (4) heavy-duty drives of comparatively high speed, short centers, and large sprocket ratios.

It is stated by the manufacturer that the properties of Promal as compared to malleable iron and cast steel are as follows: Compared with malleable iron, Promal has an average yield point of 45,000 lb. as against 36,000 lb.; an average ultimate strength of 65,000 lb. as against 54,000 lb.; an average elongation of 14% as against 18%; and a Brinell hardness of 170 to 190 as against 110 to 130. Compared with mild cast steel, annealed, Promal has an average yield point of 45,000 lb. as against 34,000 lb.; an average ultimate strength of 65,000 lb. as against 60,000 lb.; an average elongation of 14% as against 26%; and a Brinell hardness of 170 to 190 as against 120 to 140.

It is stated further, that because of these properties, Promal has to a high degree the qualities desirable in sprocket-chain material; great toughness to resist extreme tension without permanent stretch, high strength in proportion to weight and size, and hardness that affords great resistance to abrasive wear. In addition, Promal metal is tough and ductile, so that it withstands shock and fatigue loads. High temperature reduces its tensile properties somewhat, but temperatures up to 1,000° F. will not cause it to become brittle. The combination of these characteristics in the new metal gives chains made of it their high durability.

Resistor Starter for Fractional-Horsepower Motors

DEVELOPMENT of a new resistor-type starter for fractional-horsepower, d.-c., and single-phase, a.-c. motors is announced by Cutler-Hammer, Inc., 207 Twelfth St., Milwaukee, Wis. This new starter is designed for those applications where power-company rulings require that the inrush current of small motors connected to lighting circuits be held within definite limits and where the high-inrush current incident to starting across-the-line is otherwise objectionable. On starting, a resistance is inserted in series with the motor. As the motor accelerates and the inrush current decreases, the starter automatically short-circuits the resistor, connecting the motor across-the-line. The starter is push-button operated and provides thermal-overload protection to the motor. The overload relay acts directly on the contact mechanism. Small overloads and overloads of short duration, do not trip the mechanism; that is, the motor is disconnected only when it is in danger of burnout.

The enclosing case for this new starter is a standard double-wiring box, which can easily be mounted on the machine, on the wall, or at any other point convenient to the operator. Starters can also be obtained without the enclosing case for building into the pedestal or other part of a machine. Maximum ratings are $\frac{1}{4}$ hp., 115 volts, d.c., and $\frac{3}{4}$ hp., 110 or 220 volts, a.c.

Timestarters

REMOTE-CONTROLLED, magnetic starters for constant- and adjustable-speed d.-c. motors, in sizes up to 10 hp., 230 volts, have been placed on the market recently by Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa. These Class 8512 timestarters provide three points of definite time-limit acceleration, permitting safe and accurate starting of the motor under full or partial load.

Four combinations of these starters make them applicable to a wide range of uses in industrial and building applications. Type A, for constant-speed motors, does not provide overload protection nor dynamic braking. Type B, for constant-speed motors, provides thermal-relay overload protection, but not dynamic braking. Type C, for constant-speed motors, provides overload protection and dynamic braking. Type F, for adjustable-speed motors, provides overload protection, dynamic braking and full-field starting.

The complete line is of standardized construction; the different combinations being made possible by the addition of certain parts to a standard chassis.

Definite time-limit acceleration is obtained in starting by delayed action of the accelerating contacts, brought about by an escapement mechanism. Any time value within a wide range may be obtained by adjustment of a thumbscrew on the timer. Either low-voltage protection or low-voltage release may be obtained depending on the type of master switch used.

Timestarters can be operated by all types of master switches, such as push buttons, shipper-rod master switches, float switches, pressure switches, etc. Momentary-contact push buttons and shipper-rod master switches provide low-voltage protection which prevents the motor starting again after a voltage failure until the master switch is operated. Low-voltage release is obtained with maintained-contact push buttons, float switches and pressure switches.

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READING, PA.

323 So. Franklin St.
CHICAGO, ILL.

James Building
CHATTANOOGA, TENN.

52 Chauncy St.
BOSTON, MASS.

HAMILTON, CANADA

LOS ANGELES

MILLS

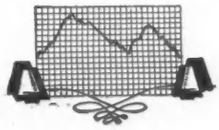
CHESTER, PA.

BELMONT, N. C.

ABERFOYLE MANUFACTURING COMPANY

Representatives in All the Principal Countries of the World

TEXTILE WORLD ANALYST



11c. Cotton Is Cheap Enough

May Go Lower, However, Although Now Apparently on an Investment Basis, Says Dr. Haney

COTTON is getting cheap enough. On basis of the statistics of supply alone, one could figure it worth at least 18c. at New York. Present prices are chiefly due to the demand situation, including the general deflation in commodity prices. Even making allowance for these factors, 11c. for spot middling cotton at New York is low enough. At this season, and with intangible demand factors predominant, it is impossible to make any definite forecast. The market may be depressed below 11c. during the season of hedging pressure in September and October. It seems likely, however, that it will come back to that figure or higher, later on.

There is danger in assuming that the present low consumption of cotton will continue for an indefinite period. The total for 1929-30 was one million bales less than in the preceding year, and consumption is likely to pick up before another year is completed. Unquestionably, mill consumption has been curtailed much more than consumption of cotton textiles by ultimate consumers, and it is only a question of time before the demand for textiles will outrun the supply. Then increasing replacement margins will come to the manufacturers, followed naturally by increased mill consumption and firmer cotton markets.

It also appears that the movement of the crop thus far has been rather early and rapid. While this may mean increased pressure on the market during the near future, it may mean less pressure later on. (If there only were not those large government coöperative holdings!)

We may also remember that the weakness of the demand is now partly due to the current trend of prices. Bearish sentiment is apt to go to extremes. Whenever a turn in the cotton market does come, there is apt to be a sharp rebound. People who would not buy at under 11c. may become eager purchasers as the price rises above 11c.

SUMMARY

Cotton is cheap enough according to normal considerations. Further weakness is likely during the next two months, but lower prices will merely represent the excesses of bearish sentiment, aided by seasonal pressure of the new crop. Cotton at 11c. at New York is probably on an investment basis. The turn will come whenever stocks of textiles are reduced sufficiently to allow independent strength in yarn and goods markets.

•

The analysis and forecast by Dr. Lewis H. Haney, Director, New York University, Business Research Bureau, which regularly appears on this page, considers various branches of the textile industry from week to week. The conclusions reached in the Analyst are mostly forecasts and generally apply to a time two or three months ahead. The Analyst is based on statistical data and does not reflect temporary trade sentiment.

Bull Points

1. Cotton is now relatively cheap, being not only the lowest in many years, but low compared with wool and with the general level of prices. It is probably below cost of production in many sections.

2. American cotton is nearly down to parity with Indian cotton; Indian acreage is reduced, and stocks of Indian cotton are below a year ago.

3. Drouth in some sections, including large parts of Texas, is not relieved at this writing; there is much shedding.

4. Total world crop for 1929-30 is only about the same as for 1928-29, and nearly two million bales less than average for the two preceding years.

5. Something like 1¼ million bales of the carryover are held by the government and cooperatives, which give assurance that this will not be pressed for sale; cooperatives appear to be getting a larger proportion of the new crop.

6. There is smaller foreign carryover of American cotton.

7. Exports in August are ahead of last year; foreign spot demand is reported improved a little.

8. Cotton Textile Merchants' statistics show a little improvement.

9. Some signs have been shown recently of improved trade buying.

Bear Points

1. The large carryover assures an ample supply for the season, the census figure being 4.5 million bales, against 2.3 and 2.5 million bales in the two preceding years; world visible supply of all cotton is now 5.27 million bales, against 3.66 million bales a year ago.

2. Government crop estimate is a little above trade estimate.

3. Small weevil damage is indicated; conditions are favorable in the Eastern section, and drouth is relieved in parts of the Southwest.

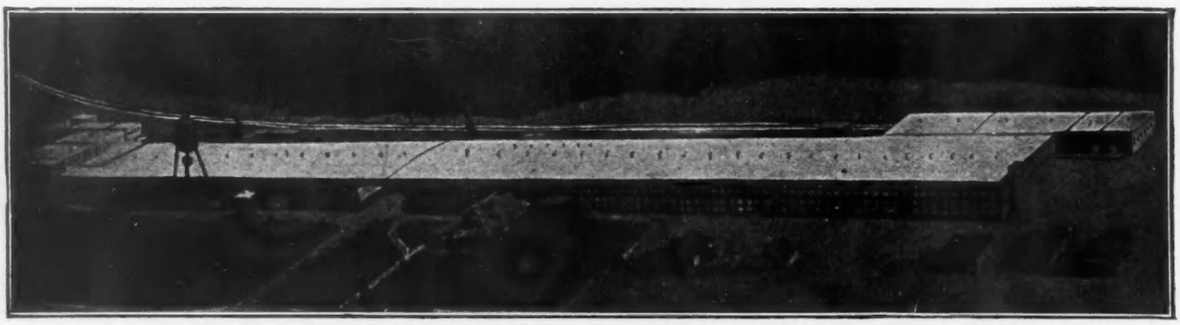
4. No improvement is apparent in English spinning and cloth manufacturing; disturbed conditions continue in the Orient.

5. Into-sight movement is larger than last year; spinners' takings are smaller; visible supply is increasing.

6. The replacement margins of spinners and weavers are very low—probably the lowest since 1924.

7. Stocks of goods and yarns are still large.

8. Hand-to-mouth buying, due to declining prices, continues; mills purchase



Spinning Mill, Lincolnton, N. C.

GRENADINE HOSIERY
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FINE LISLE HOSIERY

To keep ahead, is to keep up with the style.

To supply the demands of this latest vogue, we are making a very fine Combed Sea Island Gassed yarn—fine as to quality and count, in various twists.

Write for samples today.

5/2 to 120/2 C.P. 50/2 to 160/2 C. S. I.

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PHILADELPHIA, PA.

small quantities as required, and the same is true of textile buyers.

9. Wholesale dry-goods volume is at low levels, following an unusually sharp decline in wholesale dry-goods sales in June.

10. There is the usual hedge selling of new crop with early movement stimulated by drouth and declining prices; pressure is likely to be greatest in September and October.

On the whole, the bearish indications seem to predominate, but signs of possible future improvement are appearing. There seems to be some danger that bearish factors will become over-discounted before long.

Demand and Supply

The theoretical average monthly supply available for the new season is large. It declined at the end of July as the carryover merged with the prospective new crop, but the total expectation is about 18.8 million bales (including the carryover of 4.5 million bales), which gives an average of approximately 1.5 million bales per month. This compares with approximately 1.4 million bales for the two preceding seasons. It is the largest since 1926, when the supply amounted to nearly 1.8 million bales per month. Allowing for normal seasonal variations, the available supply is nearly 18% greater than the average for the years 1921-26.

This becomes especially significant in that it is so far above the average relationship with current mill consumption. The July mill consumption (average daily adjusted) is only 80% of the average for 1921-26, and is the lowest, except for June, since 1924. The excess of supply as compared with domestic mill consumption is the greatest since the first half of 1921, since when it has been approached only in the middle of 1926. Until this situation is relieved the market will obviously be under pressure.

There are three ways out: (1) Increased domestic consumption; (2) increased exports; (3) a reduced crop yield (possibly helped by strong financial holding by the cooperatives). As to consumption, attention is called to the bearing of the curve of manufacturers' replacement margins. In July, though there was a slight improvement in this respect, the theoretical margin between raw cotton and representative yarns and goods was only 73% of the average for 1921-26. This is very low, being worse than in 1926 and not much different from some months in 1921. Moreover, the actual margin earned by manufacturers makes a poorer showing, because they are working on higher raw material in a declining market. Also declines in yarns and goods markets since July are not promising as to the August showing. Considering the condition of general business and the absence of profits in textile manufacturing, it seems improbable that there will be any early increase in consumption, allowing for seasonal variation. Curtailment is still desirable, and is hoped for by those having the best interests of the industry at heart; but probably we must await developments in 1931 for improvement in consumption.

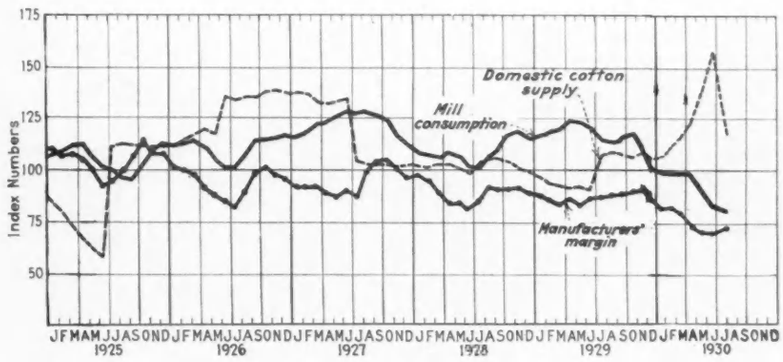

Fig. 1. GENERAL COTTON BAROMETER: Consumption—Average Daily Adjusted for Seasonal Variation, three-month moving average; Manufacturers' Margin — Average of Replacement Margins; Average Monthly Available—Net Domestic Available for Crop Year Adjusted for Seasonal Variation. 1921-1926 = 100 for all indexes.

The outlook for exports is perhaps a little better, due to the fact that foreign supplies are somewhat lighter than supposed and to the possibility of improvement in conditions in India. Here again, however, no great relief is yet in sight.

As to the supply situation, any reduction in the new crop is on the lap of the weather man, and financial assistance in holding the crop, while it may relieve pressure temporarily, is of doubtful value as a permanent factor.

Without further discussion of what every well posted cotton man knows, it can be said that the chief hope for the manufacturer lies in continued curtailment. Curtailment will for a time tend to keep raw-cotton prices down, and *so long as stocks of cotton textiles remain ample, the prices of yarns and goods will doubtless be weak in sympathy with the raw material.* But the time must come when stocks of cotton textiles will be materially reduced. Then yarns and goods will tend to rise independently of raw cotton. Manufacturers' margins will then increase, and, with moderation, the mills may profitably expand.

We must recognize that raw cotton is lower than the statistical position alone warrants. As already noted, this is due to conditions affecting demand, and is expressed in the low prices of yarns and goods and the very narrow margins of profit. The big problem, therefore, is to clean the textile house to the end that normal equilibrium may be restored to the markets for cotton goods. This is really not as difficult as it now seems, for demand is partly "psychological." Once buyers are convinced that there are no excess stocks of goods and yarns, they will rush to cover, and the whole price structure will rebound, including the raw material.

Possibility of Improvement

July yarn prices averaged only 64.3% of the average for 1921-25. Gray-goods prices averaged only 62.6% of the same base. Further declines have occurred in August. Probably supplies are still too large, so that no early sustained advances are probable.

The possibility of improvement within a few months, however, is apparent. Carded sales yarn figures for June show production to be the lowest in three years, excepting in July, 1927. Stocks increased slightly and unfilled orders decreased; but these changes seem to represent seasonal movements, and the increase in stocks was distinctly at a less rapid rate. The July figures of the Cotton Textile Merchants' Association show a decrease in stocks and an increase in the unfilled orders for standard cotton cloths. It will take time for these slight trends to bring results, but they show the way out. Further progress is up to the spinners and weavers.

The Textile Trend

Cotton Textile Markets—Weavers are enjoying better demand, especially in print cloths, but it brings little satisfaction, as prices are very low. The goods market is slightly stronger, but buying is still largely a "bargain" proposition. Sheeting sales continue below normal but a fair quantity of spot business was placed this week. Cotton yarns drew more interest which showed itself chiefly in inquiries, orders being still hesitant. Weaving trades were more interested, with prospects for good call in September. Carded weaving yarns are firmer, with talk of a price advance. Combed yarns in some cases sell above market last week's low quotations. Knitting yarns continue soft at all ends; neither hosiery, nor underwear and outerwear

Amafleece Rayofleece

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Twin yarn successes in the Cannon line. They were bound to be. These Amazon Mill products are as colorful as the foliage of the jungle. 125 colors—solids and combinations — are available. They are distinguished by a soft lofty feel that instantly registers.

You won't find other yarns like these for the simple reason there are none. They are an exclusive Cannon product. Here is something soundly "different" that's sure fire in the knitting markets. Have you samples? Available 8s to 30s — fast to light and washing.

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Sales Agents for
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Mercerized Yarns and Thrown Silk
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CANNON YARNS

mills are reluctant to buy even at concessions.

Wool Textile Markets

Woolen and worsted mills lean more to policy of producing only on order, and indications are year will be notable for low inventories. Current buying is spotty and uneven. Numerous small orders are being placed, but manufacturers are reluctant to buy ahead. Weavers are discouraged at slow movement, but their low stock situation promises to keep market moderately steady. End-August buying stressed women's goods, especially snow-flake effects and polka dots. Worsted yarns are firmer and demand for outerwear and dress goods counts has improved.

Knit Goods Markets

Knit goods recorded a slight general improvement this week. Cool weather helped the movement of heavyweight underwear, and fleece and ribbed goods moved actively. Foremost rayon underwear producer expects to cut prices on 1931 lines; $1.50 retail garments will be reduced to $1, and others in proportion. Hosiery is stronger, with good buying, both spot and future; improvement is mostly in half-hose, in which division there is a trend toward higher-priced goods; lines retailing at 50c. and over are in fair demand. Sweater sales are better, though total turnover is still behind last year. Bathing-suit lines are opening slowly; some buying, but trade is waiting openings.

Silk Textile Markets

Raw silk is firmer, with outlook improved. Manufacturers inquire actively, and, while sales have not increased, September trade prospects are better. Prices are 1 to 6c. higher. Thrown silk quiet, with no real demand at any end; light call for grenadines. Spun silk is steady, but slow. Woolen and worsted mills continue to defer fall yarn buying. Spun yarn stocks small and spinners are in satisfactory position at that end. Broadsilk demand fair, with pick-up at retail end. Cutters are very cautious and buy strictly hand-to-mouth, reordering as needs dictate. Cantons strong; satins improving. Metals and sheers are slow.

Textile Stock Trading Limited

Price Changes Show No General Trend

ALTHOUGH the general market shows a little more buoyancy, textile shares on the various exchanges have remained generally inactive. Sales have been so scattering that price changes do not assume their usual importance.

Pepperell shows signs of life and sold on Wednesday at 83, a gain of 1½ from the previous week. Low for the year was 80¼. Associated Rayon, pfd. continued its gains, climbing 3⅛ to 51⅛. Mohawk Carpet rebounded from the season's low of 16⅛ and settled at 18½. Fractional gains and losses only were shown by most of the others on the New York exchange and curb.

A total of only 167 shares changed hands at the Boston stock auctions with 80 shares of Ludlow, at 136-136¼, accounting for almost half of the volume. Ten shares of Nashua common went for 22 against a price of 32½ when last in the auction market. Extremely small lots were the order.

Awaiting Developments

Action of the shares markets makes it evident that there is little selling pressure and less buying interest. There is a tendency to sit back and await developments rather than endeavor to discount them.

A summary in the Boston *News Bureau* lists eleven cotton mill dividend casualties during the last six months and four reductions. Significance is attached to the fact that three of the largest mills in the South are represented in the list, Cannon and Victor-Monaghan reducing their rates and Riverside & Dan River omitting the usual payment on common. Other omissions were: Bates, Berkshire Fine Spinners common, Charlton, Hathaway, Merrimack common, New Bedford Cotton Mills, pfd., Standard Textile Products, pfd. A and B, Stevens Manufacturing, U. S. Finishing common, and U. S. Bobbin & Shuttle common. Other reductions were Neild and Pierce.

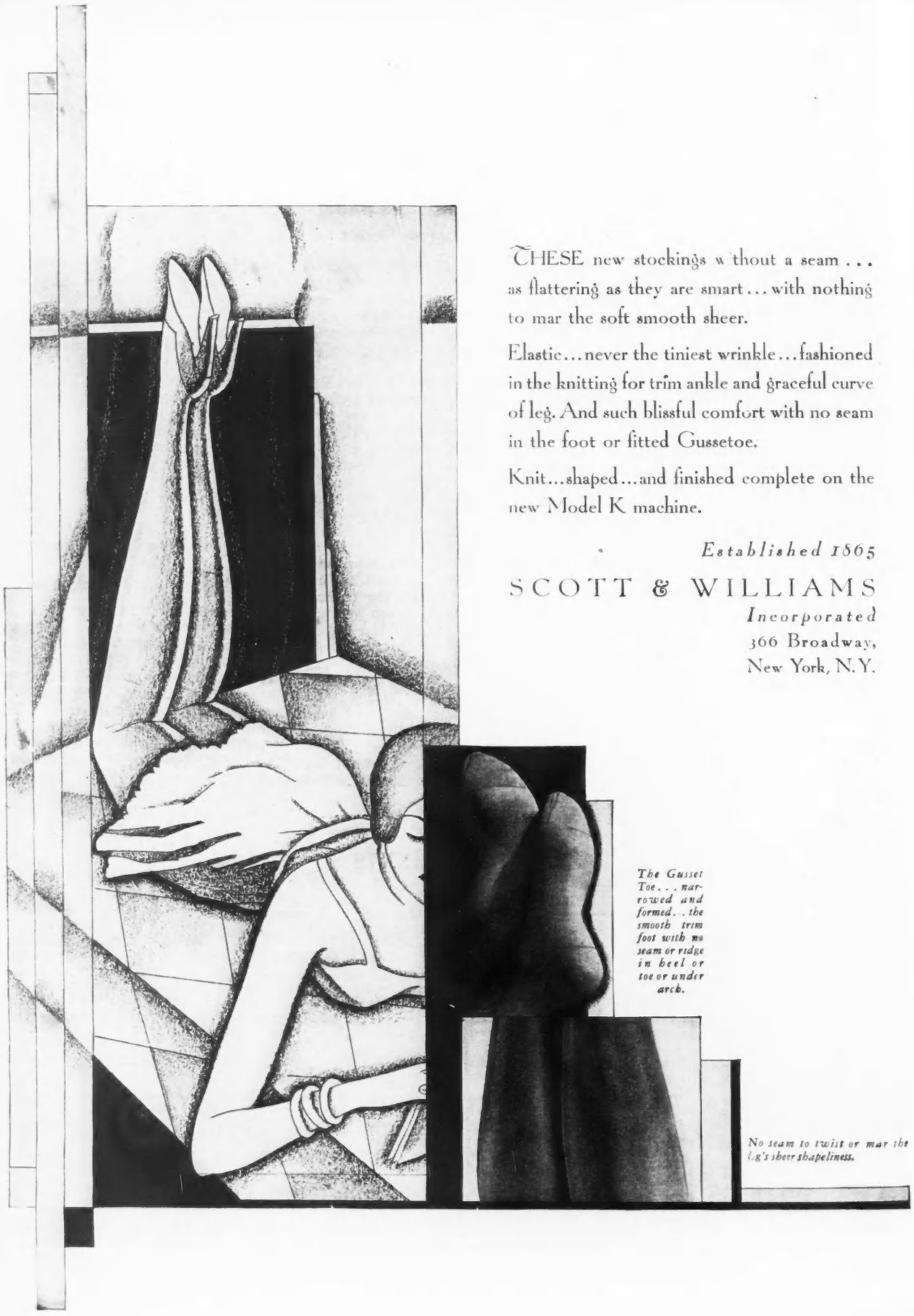
Table below lists mill statements which have become available during the week.

West Boylston Surplus Decreases

Comparison of the balance sheets of the West Boylston Mfg. Co., Easthampton, Mass., for the years ended June 29, 1930, and June 30, 1929 shows a decrease in surplus, represented by 50,000 shares no par common, of $560,140. An increase in current liabilities of $659,153 reduced the net quick from $2,543,933 to $1,634,341. Of current assets, inventory increased $706,767 to $1,978,600, with cash and accounts receivable suffering the considerable decline of $957,406. During the year, however, two years' accumulated dividends, calling for

MILL STATEMENTS

Name and Address of Company	Line of Business	Fiscal Year	Assets						Total	Liabilities and Capital		
			Cash and Debts Receivable	Raw Materials, Mdse., Etc.	Total Quick Assets	Real Estate, Buildings and Machinery	Miscellaneous			Accounts Payable, Floating and Funded Debt	Capital Stock	Surplus Profit and Loss, Etc.
							Amount	Description				
Maverick Mills East Boston, Mass.	Cotton	Dec. 31, 1929 Dec. 31, 1928	$698,041 654,776	$368,774 274,981	$1,066,815 929,757	$1,749,808 1,813,945	$542,315 451,151	Miscellaneous Miscellaneous	$3,358,938 3,194,853	$1,111,614 1,166,825	$505,800 505,800	$1,741,524 1,522,228
M. T. Stevens & Sons Co., No. Andover, Mass.	Wool	Oct. 31, 1929 Oct. 31, 1928	4,545,979 3,730,178	760,552 1,741,683	5,306,531 5,471,861	4,267,795 4,217,688	77,539 75,304	Deferred chgs Deferred chgs	9,651,865 9,764,853	30,754 170,710	3,779,100 3,779,100	5,842,011 5,815,043
Winthrop Mills Co. Winthrop, Maine	Cotton & W'l	May 31, 1930 May 31, 1929	146,420 360,477	630,539 700,940	776,959 1,061,417	763,262 806,008	.....	.....	1,540,221 1,867,425	35,573 200,337	400,000 400,000	1,104,648 1,267,088
Malden Knitting Mills, Malden, Mass.	Knit	Dec. 31, 1929 Dec. 31, 1928	298,289 330,969	748,605 572,554	1,046,894 903,523	282,390 253,405	7,901 6,745	Miscellaneous Miscellaneous	1,337,185 1,145,673	98,979 10,537	737,129 735,504	501,077 399,632
Abbot Worsted Co. Graniteville, Mass.	Wool	Dec. 31, 1929 Dec. 31, 1928	952,011 1,122,302	1,831,734 1,076,117	2,783,745 2,198,419	2,981,195 2,939,555	.....	.....	5,764,940 5,137,974	679,705 216,924	600,000 600,000	4,485,235 4,321,050
Premier Worsted Mills, Bridgeton, R.I.	Wool	Dec. 31, 1929 Dec. 31, 1928	66,069 53,411	177,642 160,460	243,711 213,871	74,641 19,023	2,275 3,161	Miscellaneous Miscellaneous	320,627 336,055	104,702 93,812	142,500 142,500	73,425 99,743
Algonquin Printing Co., Fall River, Mass.	Printing	Dec. 31, 1929 Dec. 31, 1928	1,119,772 575,308	592,853 728,542	1,712,625 1,303,850	743,165 730,452	1,925,748 2,196,305	Bonds Bonds	4,381,538 4,230,607	15,147 23,764	1,000,000 1,000,000	3,366,391 3,206,843
Acadia Mills Lawrence, Mass.	Cotton	Dec. 31, 1929 Dec. 31, 1928	1,126,945 1,099,447	340,259 442,052	1,467,204 1,541,499	2,545,727 2,546,368	36,765 39,009	Deferred chgs Deferred chgs	4,049,696 4,126,876	17,108 56,047	3,000,000 3,000,000	1,032,588 1,070,829
Clover Worsted Mills Franklin, Mass.	Wool	Dec. 31, 1929 Dec. 31, 1928	75,581 2,768	217,081 247,355	292,662 250,123	131,955 127,145	3,645 3,366	Miscellaneous Miscellaneous	428,262 380,634	132,378 85,054	150,000 150,000	145,884 145,580



THESE new stockings without a seam . . . as flattering as they are smart . . . with nothing to mar the soft smooth sheer.

Elastic . . . never the tiniest wrinkle . . . fashioned in the knitting for trim ankle and graceful curve of leg. And such blissful comfort with no seam in the foot or fitted Gussetoe.

Knit . . . shaped . . . and finished complete on the new Model K machine.

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366 Broadway,
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The Gusset Toe . . . narrowed and formed . . . the smooth trim foot with no seam or ridge in heel or toe or under arch.

No seam to twist or mar the leg's sheer shapeliness.

$349,760, were paid on the 8% preferred stock and three quarterly dividends of $2 each distributed during the period, the June 1 payment being passed. Total preferred stock outstanding shows a decrease of $495,000 during the period.

Victor-Monaghan Shows Loss

The Victor-Monaghan Co., operating five cotton mills in South Carolina, reports for the year ended June 30, 1930, a net loss of $86,692, compared with a profit of $613,886 in the previous year. This is the first time since organization in its present form in 1917 that the company has been "in the red." From 1918 through 1929 annual profits averaged $893,000 and in 1920 the best record was set up, earnings in that year totaling $3,108,371. In April of this year operations were reduced from a 65% to 50% basis and, in June, the common dividend was cut from $8 to $6 annually.

Acushnet Liquidation Dividend

Directors of the Acushnet Mill, New Bedford, Mass., have declared a second liquidation dividend of $10 per share, payable Sept. 2 to stockholders of record August 22. An initial liquidating dividend of $30 was paid in June.

Boston Stock Auctions

The following sales of textile shares were made at Wednesday's auctions:

Shrs.	Mill	Par	Price	Change
28	Associated Textile	...	35–36½	.....
7	Pepperell	100	86	+ ½
15	Dwight	25	2½	.....
10	Nashua, com.	100	22	—10½
10	Naumkeag	100	88	+ 1
80	Ludlow	100	136½–136	— 2
1	Berkshire, pfd.	100	55	— 4
6	Berkshire, com.	...	9	— 3
3	American Mfg. pfd.	100	60	— 8
7	American Mfg. com.	100	45½	.....
167	Total			

Another Decline in South

Charlotte, N. C.—The bid price of 25 common stocks of southern cotton mills closed for the week ended Aug. 23 at 68.32 per share or a net loss of 1.56 from the close for the previous week according to the weekly market report as furnished by R. S. Dickson & Co.

Boston Wool Receipts

Receipts of domestic and foreign wools at Boston, also imports at Philadelphia and New York for the week ended Aug. 23, based upon data compiled by the Market News Service of the Bureau of Agricultural Economics Department of Agriculture, are as follows:

	Week Ended Aug. 23	Total to Date 1930	Total to Date 1929
Domestic	1,503,000	308,523,000	162,708,000
Foreign	1,343,000	49,893,000	77,490,000
Total	2,846,000	358,416,000	240,198,000
IMPORTS AT PRINCIPAL PORTS			
Boston	1,343,000	49,893,000	77,490,000
Philadelphia	960,000	33,466,000	56,802,000
New York	731,000	30,947,000	52,308,000
Total	3,034,000	114,306,000	186,600,000

Cotton Yarn Outlook Brightens

Firmer Cotton Market And Larger Demand Help

Philadelphia.

STRENGTH instead of weakness in the cotton market has caused an improvement in yarns although actual sales volume has not increased materially. There has been a larger number of weavers making inquiries and sales to them have totaled higher than during recent weeks although individually sales are no larger. Combed and mercerized yarns are firm at the lower level made effective last week but sales have not expanded.

Early this week cotton turned upward for the first time in weeks, and, although yarn prices did not advance, quotations were firmer and sellers more likely to hold for higher prices than they would have accepted last week. This was more evident in weaving counts than in knitting. There was active trading in knitting counts early in the year while weavers were inactive. The reverse is apparent at present, knitters now being more worried about high-priced yarn contracts on which they are expected to take delivery than are weavers, the majority of whom are liquid so far as yarn contracts are concerned and in better position to derive full benefit from current low yarn prices than are knitters as a group at present.

Knitting Yarns Unsteady

This week sales of carded knitting counts have been reported at 20c. level for 10s although this is a cent below the accepted market level and several knitters claim to have been offered yarn at 19c. basis. Spinners assert that the 19c. cones are not spun from white cotton.

While carded counts were being hammered by knitters, weaving numbers have held steady and are inclined to become firmer especially for immediate delivery merchandise. Dealers report smaller stocks than at any time this year and are unable to make deliveries from stock in active and popular counts, being forced to wait until shipments are available from the South. If demand should expand further the smallness of dealers' stocks will become more important in the consideration of the manufacturers.

Effect of this relative scarcity has been seen in prices of weaving yarns; 20s-2 warps of average description and quality has been offered as low as 22c. this week which is unchanged from last, with spinners holding for 23c. and higher, also unchanged from last week. This is in contrast with knitting yarn which has been offered lower this week than last. Several trades have bought larger amounts, among them being towel and men's wear mills.

Combed Yarns At Cost

Opinion concerning combed yarn price reduction of last week is that spinners in the South have made this strenuous effort to meet outside competition, especially from New England spinners and to put an end to the previous situation. Previously southern spinners were higher than the actual selling market as made by smaller factors willing to sell 3c. under market. Large combed spinners have made the cut to meet such competition. There was only a small volume at the lower level before the reduction and conditions have not changed to any apparent extent since the change of last week.

Specifications on old contracts are the crux of the matter so far as mercerizers are concerned and the lower price level now in effect makes their position only that much more difficult, knitters being less anxious to take shipments when they can place new business 5 to 7c. under the figures named in old contracts. Mercerizers assert there will be little difficulty in this respect when knitters become more active and really need yarn. At present mercerizers are dull, needing specifications on old contracts, and operating at low rates.

●

New York.—Cotton yarns are more active, but the new spurt is less actual buying than inquiries. Weavers are showing increased interest and are watching the market closely. The firming of raw cotton brought a flurry of orders for combed yarn, but now sales have slackened again. Current buying is spotty; some spinners appear to be doing considerable business, both spot and future; there is a fair amount of October-November business being placed. Other mills have difficulty in moving stocks.

Compared with recent weeks, the market shows improvement. Spinners are disposed to resist pressure for concessions, and in some instances, orders are forthcoming despite this refusal to cut. The seller's position is slightly better, but still far from satisfactory. Sales are decidedly behind last year, and manufacturers continue doubtful regarding the fall prospects for finished fabrics.

Carded yarns are firmer, with a steady but light call. Spinners believe these yarns will go up shortly, though whether this is merely a case of the wish being father to the thought, only time will tell. Combed yarns in some cases were

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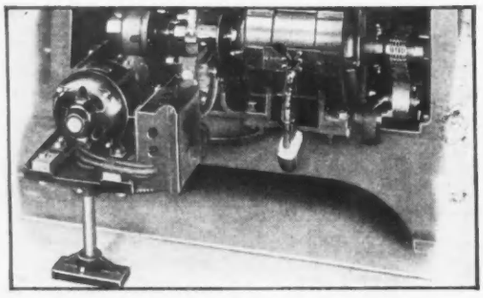

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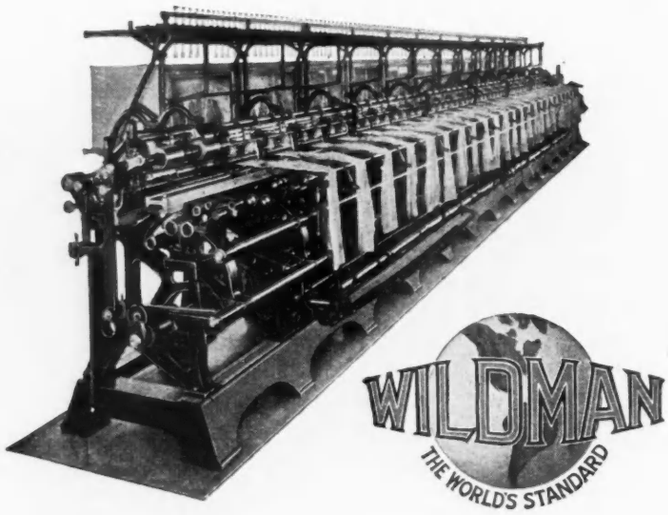

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selling above last week's quotations. Knitting yarns continue very soft in the New York market. Underwear producers are still in waiting mood regarding the coming season, and the hosiery trade has not yet recovered sufficiently from its poor first half to buy confidently.

Improvement in Worsted Yarns

Fall Buying By Knitters Help Market

PHILADELPHIA.

ALTHOUGH spotty as yet, improvement in worsted yarn demand is at hand. Several French system spinners selling knitters making fabrics for women's two-piece suits, are sold ahead tight for several weeks and are unable to make deliveries promptly. Interest in this count was quiet until recently and spinners were wondering if they were to receive any business for this fall. Demand for it is active at this time and will probably continue for another month.

The count most active is 2-40s, 64s, French spun, for which prices ranging between $1.60 and $1.65 are being paid, more holding at $1.62½ and higher than are willing to sell at the lower figure.

Dress goods manufacturers making woven goods have been buying yarns in volume for the first time in many months, taking good sized quantities of 30s fine warps both from stock and to be made by spinners. A wide range of prices is reported due to the difference in stock used by various spinners and required by manufacturers. A 64s grade yarn but spun from short stock is popular, but is priced considerably under the price asked when 64s from long staple wool is wanted. This accounts for difference in prices of this count.

RATINE YARNS WANTED

Dress goods manufacturers are asking for ratine yarns spun on worsted system and several lots of this yarn have been moved on the basis of so many yards per pound. Spinners in most instances are going slowly in offering large amounts due to the nature of this yarn and the possibility of demand quickly changing. Boucle and ratine yarns made from silk, rayon and cotton have been active but it is not felt this development in worsted field will cause many spinners to change their plants over to ratine.

Men's wear section is quiet and new developments will not be seen until after fancy fabrics for light-weight season are opened within the next few weeks. When this takes place there will be business for spinners according to present indications, manufacturers having finished this season with a rush leaving the majority liquid so far as yarn contracts are concerned. Mills are less active than last week running out old orders and this will continue for next few weeks until new season goods orders are received.

Other branches of the outerwear section have shown a greater disposition to buy yarns and men's and boys' sweater manufacturers have been taking larger quantities this week. Indications are the fall buying wave has begun and demand for outerwear yarns will continue to register improvement from now on for a period of at least five weeks. Delayed buying will cause this, manufacturers, jobbers and others having postponed buying at late as they dare. Infants' mills have bought more freely for lines that should normally have been covered with yarns three months ago.

Taken together developments within the last two weeks furnish definite proof that fall buying of worsted yarns is or soon will be at hand in majority of sections of the market, having already been apparent in dress goods both woven and knitted. Aside from this, although possibly due to it, has been the change in attitude of sellers. They are no longer willing to "give" their products away but now are holding more firmly than at any time within six months.

◆Spun Silk Steady but Quiet

SPUN silk is steady but quiet. Mill men are disappointed at the failure of woolen and worsted manufacturers to begin buying, but look for some business from this group early next month. Spun silk is important in the woolen and worsted fabrics this fall, and the spinners were hopeful that these weavers would have begun buying by mid-August. However, the woolen and worsted industry shares the hesitancy which characterizes all textile lines at present, and these mills will not place any yarn orders until they have a more satisfactory response from their own outlets.

Spinners are in a satisfactory position, despite the lull. Considerable fall business was placed before the warm weather started, and most of the leading spun silk companies now have enough business on their books to keep them occupied for months. Current buying by broadsilk mills is light, but these weavers are expected to begin placing spring orders about mid-Septemper. The broadsilk trade is confident regarding the spring prospects for spun silk fabrics, and indications are they will cover early on their requirements. Indeed, it would be advisable for them to do so, as any duplication next year of the 1930 shantung boom might make deliveries difficult, if orders were held up to the last minute.

◆Thrown Silk Market Feels Holiday Lull

THE indifferent attitude of knitters and weavers toward thrown silk became still more indifferent this week, so far as actual buying was concerned, and throwsters attributed the lull to the holiday week-end. Labor Day usually marks a turning-point in the minds of both manufacturers and distributors, and a slight improvement is looked for next week.

Hosiery mills are buying little or no tram yarns, and, even at the grenadine end, demand has slackened. Broadsilk mills placed some business this week, but all orders were small; these weavers are buying piecemeal, restricting orders to immediate needs. Prices of yarn are slightly firmer than last week, though they are still weak. Throwsters offer more resistance as regards giving concessions, but sometimes this means sacrifice of business.

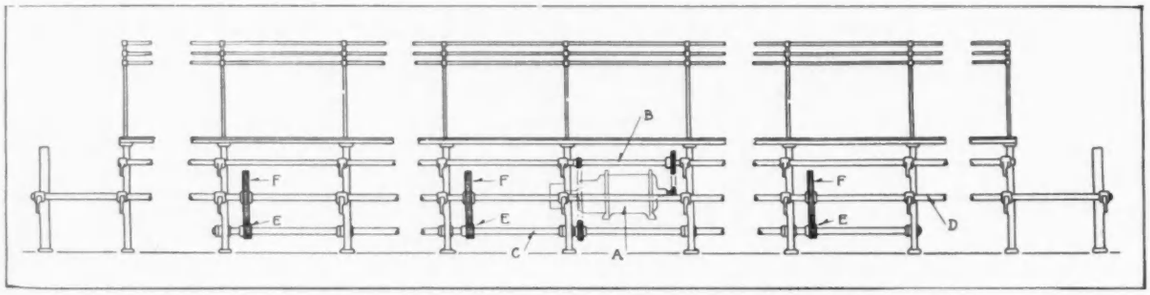
Yarn stocks in throwing mills are moderate. Throwsters say that a brief spell of real buying would bring their supplies down to normal, thus creating a firmer market.

Rayon Price Guarantee Unlikely

Action by Knitter Independent, Yarn Producer Asserts

DISCUSSION of a rayon yarn price guarantee became specific this week, when a foremost rayon knit fabric mill announced by correspondence that it would guarantee its customers against a rayon price cut between now and Jan. 1. The price guarantee letter as published does not state whether the guarantee affects delivered goods, undelivered goods, or both. However, coming on the top of widespread pressure among rayon users for such an assurance, the step has considerable significance. A producing company which supplies this mill with yarn was asked whether the announcement indicated that it would guarantee prices, and the answer was an unequivocal "no." It is understood that this rayon company has been seriously considering the price guarantee question for some time, numerous customers having asked that

A TYPICAL READING IMPROVEMENT



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some such pledge be given, to protect them in case of a cut.

The attitude of this rayon producer at present is that there is no need for a guarantee, and a spokesman for the company asserted that whatever a customer mill might do, as regards a price guarantee, was entirely its own business. The implication was that the mill was simply taking a chance on prices remaining at current levels. At present, there are no indications of a price cut at an early date. Rayon yarn sales are far from satisfactory, but the market is no less quiet than other divisions of the textile industry. However, it is also true that consuming trades are skeptical, and are holding back on orders, for fear of some unexpected revision. Two large rayon makers stated publicly that they would not guarantee prices.

SOME PRODUCERS GUARANTEE?

The guarantee by the knitter caused considerable discussion, both among producers and users. Producers were reluctant to talk, but there was some disposition to interpret the action as of broad import. There were reports this week in the yarn market that some rayon producers already are guaranteeing customers against a price cut. If this practice obtains, it is being done very much under cover. No spokesman either for producer or consumer who was reached this week would admit being party to such a policy.

DEMAND IMPROVES

Demand on the whole is better than last week. There is a fair call from both knitters and weavers; all orders are small and no firms are buying more than a month ahead. Manufacturers are more encouraged regarding outlook, and they talk of placing sizable orders after the holiday. Current buying, though light, is encouraging, as the pre-Labor Day week is normally quiet. Neither weavers nor knitters will increase output of winter lines until about mid-September, and the coming month therefore should mark a slow pick-up. Underwear mills are gradually increasing their consumption of 100 denier, though the bulk of buying continues to fall in the 150s and 125s.

◆Cotton Waste Prices Nominal

BOSTON.

DEMAND for all types of cotton waste is still conspicuous by its absence, although dealers are in receipt of a larger number of inquiries. Consumers evidently are sounding out the price position of the market and many dealers are hopeful that this interest may result in business. Because of the curtailed operating schedules of cotton mills, stocks of wastes in dealers' hands are not excessive and, in the opinion of one dealer, it would require but little active demand from consuming mills to impart firmness to the price structure.

Prices are nominal and in the buyer's favor. Peeler comber is quoted on an 80-82½% basis, with choice lots being held at 9½c. Peeler strips are relatively firm at 8 to 8½c., while Egyptian strips can be obtained at around 7 to 7½c. The thread section of the market continues firm owing to the relatively small amount of this material coming on the market. In the bedding stocks, picker brings around 3 to 4½c. and fly about 4½ to 5½c.

◆Many Inquiries For Rayon Waste

MANUFACTURERS are showing considerable interest in rayon waste and waste dealers are receiving many inquiries, which they interpret as promising a better demand in September. Current orders are light, and prices are very soft. It is impossible to regard quotations as more than nominal. Open bleached waste officially sells at 16c. per lb., but several dealers this week were selling that yarn at 10c. Manufacturers' bleached thread waste, listed at 11c. can be bought at 7c., if the buyer does sufficient shopping around. These lows are exceptional, and the average price hovers between them and the listed figures.

Despite the weakness, waste dealers are optimistic regarding outlook. Stocks of waste on hand in rayon plants and in the dealers' warehouses are not so large but that several weeks active buying would clear them out. Another helpful element is that waste consumption in Europe has been steady, and there is no large surplus over there.

Numerous distress lots were sold below market in New York this week, and dealers are divided between waiting for the expected September improvement, or moving their stocks at a sacrifice.

Cotton Market Is Steadier

Firm Technical Position Reflected By Rallies in Futures

THE action of the cotton market during the week has reflected a strengthened technical position in futures, evidences of a holding movement in the South, and more or less uncertainty as to the probable showing of the approaching Government crop report. Cotton's possibilities as an investment proposition at the low prices reached on the decline in the previous week may have been a contributing factor, but the bulk of the buying has been attributed to the covering of short accounts; and it is a question, perhaps, whether the advance has reflected any decided increase of either trade or speculative buying. At 10.69 for the new October contract on Aug. 18, the market showed a decline of approximately 2½c. from the high price touched on the rally which preceded the Government crop report earlier in the month, and was at the lowest level touched by any contract in the market here since July contracts sold at 10.54 in June, 1921.

SOUTHERN SPOTS STIFFEN

Doubtless the technical position of the market following the decline of early August entitled the market to rallies which have been promoted by reports of a stiffening spot basis in the South and the failure of hedge selling to develop as rapidly as expected in view of the increasing movement of cotton through the gins. The recovery carried the price of new October up to 11.50 on Tuesday. Orders seemed to become better divided at this figure, however; and some operators were inclined to question whether the trade situation was good enough to sustain advances until, at least, the strength of the holding movement in the South had been tested by the further advance of picking and ginning.

The report of the Census Bureau showed rather heavier ginnings prior to Aug. 16 than was anticipated. The figures were 572,666 bales against 304,771 the previous year, and, next to 1925, were the heaviest on record for that date. In a general way the cotton trade does not accept early ginning returns as a reliable guide to the size of the crop. Heavier ginnings are usually attributed and usually occur following the hot summer, as high temperatures hasten maturity; and they sometimes indicate a relatively small crop when yields have been curtailed by droughty conditions.

Nevertheless the ginning figures compared with the volume of hedging here seem to emphasize the holding movement in the South, and it would seem that the attitude of the Federal Farm Board or the cooperatives has encouraged holding by individual planters. Arrangements have been made by the Federal Farm Board to advance the cooperatives 90% of the value of cotton where located, compared with the previous advances of 75%. These advances apply to cotton placed in the seasonal pool, while advances on cotton in the special pools will be 80%.

It is anticipated that these liberal advances will attract a greater proportion of the cotton to the cooperative marketing organizations, and it is reported that the cooperatives have been handling about 10 to 12% of the early cotton in the Corpus Christi area of Texas. There have been reiterated assurances from members of the Farm Board that the old-crop cotton held by the Cotton Stabilization Corp., amounting to about 1,300,000, bales will not be dumped on

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the market to compete with the 1930 crop.

Rains Relieve Drought

Some fairly good showers or rains have been reported in Oklahoma and northern sections of Texas. These have been considered beneficial, as they will check premature opening and help to fill out bolls, although any plant growth they may promote otherwise will be important only in the event of a favorable late season and late frosting. Parts of Texas are still too dry, and the best reports continue to come from eastern sections of the belt. There is also some deterioration in condition during August, and it is a question whether the continuation of the drought during the greater part of the month in the western belt and parts of the central belt has led to greater than average falling off in condition this season.

There has been no crystallization in the sentiment as yet with reference to the probable showing of end-August condition and crop figures, but in a general way the trade does not seem to anticipate much change in the end-August estimates as compared with the official end-July figures, placing the indicated crop at 14,362,000 bales. Sentiment in this respect may be changed by the private reports which are expected within the next few days. The Government report is scheduled for publication on Aug. 8.

●

Memphis, Tenn., Aug. 25—Dullness continues in the cotton market here; mill inquiry is extremely limited, season considered, while merchants are showing no inclination to buy ahead of orders. Only 40 bales have been sold out of local stocks since Aug. 6. Fact that new crop receipts so far are negligible and that stocks in factor hands have been combed over frequently during recent months may explain partly the attitude of merchants but it is also apparent that merchants were never more at sea on the verge of a new crop movement. New crop receipts are expected to increase at a rapid rate within the next week or ten days.

Sales at Texas centers show sizeable proportions, but nothing in comparison with the ginnings. Some attribute this to lack of demand, others to a holding movement and say they expect prices, if they remain anywhere near where they are now, to force a great deal of unwilling cotton into Co-op hands. That there may be something in the idea that cotton is being held is indicated in the fact that some merchants here with small orders for staples have so far been unable to find the cotton; however, the movement of new crop staples has not started and a few days' time may make considerable difference in the supply available. Export demand is almost nil and domestic mill demand is not much better, being confined mostly to low grades of approved type for immediate or nearby shipment.

Inquiry is directed mostly to the shorter lengths of cotton, $\frac{7}{8}$ to $1\frac{1}{16}$ in. as a rule, but recent declines in prices seemed to have put a further damper on mill interest. Basis shows no decided trend. Staples are officially quoted with the basis unchanged from the previous week. Strict middling $1\frac{1}{8}$ in. staples are quoted at 150 points on the new October contract; $1\frac{3}{16}$ in. at 350 on and $1\frac{1}{4}$ in. at 850 on. These quotations are nominal.

Weather conditions during the week were unfavorable for the cotton crop but favored harvesting with which excellent progress was made. There was further deterioration west of the Mississippi River, and over western portions of Tennessee and Mississippi, due to continued drought, which was broken only in spots. Excessive heat prevailed over Texas and Oklahoma, while night temperatures were too low in central and eastern districts of the belt, ranging downward to about 60 degrees at Memphis and as low as 54 degrees eastward.

Wools Quiet But Firm

Seasonal Buying Expected Within Six Weeks but Chance of Advance Is Scant

Boston.

Further decreases in the volume of business on Summer Street have taken place recently, but this is generally considered only in line with the seasonal trend. Many mills close down in August for a week or two holiday, while the equipment is being overhauled. This naturally reduces the consumption of wool somewhat and buying is not likely to be carried on so vigorously during the shutdown. Manufacturers of fancy lightweight goods are inclined to withhold further purchases of wool at this time as the openings of new lines are not scheduled to take place before the middle of September, and they prefer to wait until they can get a line on the goods which are going to be wanted before covering on wool.

Await Spring Openings

The wool trade is confidently looking forward to a substantial business within the next six weeks, resulting from orders placed on lightweight fancies. This, again, is a seasonal development. The main question is, how large will the business be when it does come? Some observers hope that the volume of business will be great enough to warrant at least a small advance in prices. This view, however, is not generally held, although it is almost universally desired. Even the manufacturers are in a mood to countenance some appreciation in wool values because of the increase of confidence that a moderate strengthening would stimulate. The attitude more commonly met in the trade is that wool prices are firm with little prospects for much of a rise. At the same time, no one is willing to sell the market short.

The situation on fine domestic wools appears very strong, viewed either statistically or from the market standpoint. Consumption of fine wool in June, according to the Department of Commerce, increased more than 2,000,000 lb. over May. Considering the decrease in the amount of foreign fine wool consumed in June as compared with May, the increase in consumption of domestic fine wool was over $2\frac{3}{4}$ million lb. in the 80-85% of the industry that regularly reports. This tendency has been distinctly reflected in the wool market.

Fine Wools the Backbone

During the spurts of buying this season, fine domestic wools easily lead in the demand and as trading shows a dropping off, it is the fine grade that furnishes the backbone of the little business going around. The same has been more or less true with regard to woolen wools and tops. The finer grades of pulled wools have shown much greater resistance to pressure than the medium qualities. In noils, it has been the fine grade that was in demand. Top demand has been persistently on 64s and this has been the only count that has moved in sizable weights for several weeks.

Current trading in wool is restricted and consists chiefly of a few lines of fine wool. A steady call is being received on Territory original bag wools. Utah and Nevada offerings of the best staple bring around 70c., clean basis. Best Wyoming and Montana lines sell at 72 to 73c. Colorado and New Mexican fine wools suitable for the top-makers to use in the short fine top are available at 65-68c., scoured basis, but there have not been many sizable lots of this type moving of late. Twelve months Texas wool continues to have a fair call, but the movement of this type of wool is not nearly so large as it was two weeks ago. Ohio delaine is quieter, partly for the reason that some holders have not been willing to accept current offers. Manufacturers have bid up to 31c. and dealers have let the business go by rather than make any concession.

There has been a fairly broad movement of small sample lots of various grades of domestic wools. Fine wools predominated, but $\frac{1}{2}$ blood wools also have been subject of considerable inquiry. Of particular interest in this line is $\frac{3}{8}$ blood. Only a moderate amount of business has developed on

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this grade but there are a number of mills, formerly not running much on this grade, trying out samples. Dealers are hopeful that this interest will lead to substantial orders later on.

CARDING WOOLS SLOW

Houses specializing in wools suitable for the woolen mills are experiencing a very dull time. Sales are very small and buyers are rather scarce in the market these days.

The carpet situation is showing a much better undertone. Manufacturers have been showing considerably more interest in offerings of spot wools. It is currently reported in the trade that carpet mills have received some business and this seems to be confirmed by the willingness of some buyers to take over moderate quantities of raw materials. Sentiment is improved quite a lot by firmer quotations on carpet wools in some of the primary markets.

Raw Silk Market Firmer

Prices Rally, and Outlook For September is Better

RAW silk is firmer, with outlook improved. Manufacturers are actively inquiring and, while sales have not increased, there is a better feeling at the buying end. Prices are one to six cents higher. Importers do not look for any real rise in quotations and will be satisfied if prices hold their own during the next month. The week preceding Labor Day is usually quiet, and the current interest shown by weavers is a good sign. Broadsilk mills placed considerable business this week, mostly small lots and for nearby shipment.

The improvement is only comparative; as against last year at this time, the market is dull. Consuming industries are producing very cautiously in every line, and are reluctant to buy ahead to any extent. They do not see the current low levels as presenting an exceptional opportunity, and their own sales prospects are still considered dubious.

QUIET WEEK ON EXCHANGE

The week opened slow; Japanese markets were firm, but there was little interest shown in New York trading. The market firmed Aug. 21, thanks to continued strength in Japan, and spots showed some activity; this demand continued on Aug. 22, but futures weakened in Japan. Saturday was another "no-sale" day, the third in three weeks; uptown operators seemed willing to bargain, but holders declined to reduce their levels. Monday and Tuesday were dull, but prices held steady. Interest centered on the small lots. Japanese cables were firm Tuesday and this helped to maintain New York prices, but trading continued hesitant.

◆Sweater Demand Shows Improvement

KNITTED outerwear buying interest centers mostly on sweater goods. Demand at this end took an upward trend last week and staple and fancy lines both are moving at a fair pace. Plain goods are in a much better position, as regards turnover, though total sales to date for fall are still well behind those of that year at this time. Knitters note a greater confidence among both jobbers and retailers. There is plenty of active inquiring, and a steady spot demand; pullovers and shakers and women's sweater coats are stressed, and there is also a good call for boys' jacquards. Prices are steady, and the outlook is encouraging. Stocks are still heavy, due to the slow start of the season, but continued buying at the present rate, would soon reduce them to normal.

The new bathing-suit lines are opening slowly; it was estimated this week that 25% of the industry had yet to show their 1931 offerings. Mills are in no hurry to complete their new lines, despite the fact that a good part of the trade is already selling the 1931 merchandise. Actual orders so far have been sufficient to indicate strong confidence among the buying fraternity, but not big enough to cause mills to rush their openings. Jobbers and retailers spend their time leisurely "shopping" the showrooms of the mills which have opened; buying is restricted to a fair quantity of "feeler" business, the sizeable orders being withheld pending the completion of the openings. Buyers talk confidently of the 1931 outlook and some good future business probably will be booked during September.

Winter Underwear Selling

Cool Weather Spurs Buyers to Reorder Actively

THE cool weather the latter part of the month sharpened buyer interest in heavyweight underwear, and there was some spirited reordering of ribbed and fleece goods. In a few cases, mills had difficulty in filling orders on the more popular lines, but as a whole, buyers had no trouble in getting quick delivery. Mill stocks, while not large, are still adequate to demand; knitters curtailed considerably during early summer however, and that policy is helping them somewhat.

Recent reduction of heavyweight prices by a leading producer failed to stampede the trade into a general cut. The smaller mills are selling at first delivery figures for the most part, but some of the big-volume houses are holding pat. One foremost concern announced this week that it would not make any cotton goods reductions, either on heavy or lightweights.

ARGUES FOR FIRM PRICES

The sales manager of this company commented: "There is very little pressure on us for a cut, and we can't see the logic of it. Why cut when raw cotton goes down? We do not raise prices when cotton goes up. On the whole, our customers are satisfied with prices as they are. We cannot see that a cut would stimulate sales sufficiently to justify itself. We are not afraid of other companies selling at 25c. less.

The consumer will buy our garments, even if they do run 25c. higher; at least, that is our belief and we are ready to stand by it."

The same company expects to reduce rayon underwear prices to conform to the yarn price cut. The $1.50 garments will be cut to $1, and the $1.95s to $1.50. This firm is making a particular stress on the claim that they will reduce prices and at the same time improve the quality of the rayon line.

It is expected that by the time this issue reaches the reader, heavyweight business will reach 75% of total orders, which would be reasonably satisfactory, considering the backward season.

Buyers are "shopping" the spring lines, but little business has ben placed, due to the fact that not all the mills have announced their spring prices. Downward revisions are expected to be made early next month.

◆Half-Hose Shows Decided Advance

HOSIERY is stronger, and buyers are showing considerable interest both in spots and futures. The improvement is mostly at the half-hose end at present, as the expectation of a price-cut by the full-fashioned producers affected by the lower wage scale put into effect Aug. 1 has made buyers of women's lines hesitant.

In men's goods, the tone is considerably better. Sales show a slight upward trend, but the significant point

Du Pont Diazo Colors

for discharge printing on

RAYON FLAT CREPE

The use of rayon for dress fabrics is constantly increasing . . . constantly emphasizing the need for colors of good fastness. Pontamine Diazo Colors are the answer.

Since these colors are fast to washing and will not bleed into the printed pattern, they are particularly desirable as dyed grounds for discharge printing. Where the discharge portion is to be white, they give a *clean* white.

Pontamine Diazo Colors give level dyeings . . . they are fast to washing.

Let our technical service cooperate on your dye problems. They are well equipped to serve you, and glad to do so. Write direct, or to our nearest branch office.

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PONTAMINE
DIAZO COLORS *for* RAYON

Pontamine Diazo Yellow 2GI
Pontamine Diazo Orange
Pontamine Diazo Orange G
Pontamine Diazo Orange 3G
Pontamine Diazo Orange 2R
Pontamine Diazo Brown R
Pontamine Diazo Bordeaux 7B
Pontamine Diazo Red 5BL
Pontamine Diazo Red 7BL
Pontamine Diazo Scarlet A
Pontamine Diazo Scarlet 2BL
Pontamine Diazo Scarlet R
Pontamine Diazo Violet BL
Pontamine Diazo Blue BR
Pontamine Diazo Blue 3G
Pontamine Diazo Blue 2RL
Pontamine Diazo Green 2GL
Pontamine Diazo Black BHSW Conc.

is the increased number of inquiries reaching the mills. Another feature, is the improved demand for the higher-priced numbers. Ever since the industrial depression started last fall men's hose retailing at 50c. and over, have been sluggish. Mill men now report a moderate call for these lines; silk-and-rayon half hose and all-silk numbers are moving steadily. All orders are of conservative size and mostly for spot delivery, but the trade is encouraged and looks for a good turnover on the higher-priced lines in September.

AGENTS OPTIMISTIC

Agents spoke optimistically this week, of the half-hose outlook. One firm reported a considerable call for numbers retailing at $1. Another firm, which specializes in men's half-hose and women's seamless did a better business last week than any week since they entered the second half of the year. All mill men interviewed commented on the increased confidence evident among buyers. Some representatives of big retail outlets have remarked to their source factors that they anticipate difficulty in getting certain half-hose merchandise in September. There will be plenty of stocks available, it is recognized, but the curtailment by producers and the last-minute buying by retailers may result in certain popular numbers running short. Half-hose prices reflect the better tone, and are somewhat firmer. There is still effort to get concessions, but mills are putting up more resistance. Buyers no longer can get goods at practically any price; the demand is encouraging enough so that mill men feel able to insist on reasonable margins.

Cotton Goods Moving

Bargain Prices Prevail; Further Curtailment Urged

COTTON weavers are only half satisfied with the current strong buying trend. Manufacturers are considerably more confident, and there was a substantial turnover last week, especially in print cloths. However, prices are still so low that the added business means little to the mills. Prices are slightly stronger than they were ten days ago, and the mills are hopeful that the current firming will continue long enough to justify a gradual upward revision. Buying is still largely on a "bargain" basis, and efforts to eliminate special concessions usually have the effect of discouraging demand.

SHEETINGS FAIR

Sheeting sales are below normal for this time of the year, and demand is light. There was a fair sprinkling of medium-sized orders this week, all for spot shipment. No real interest is shown, as regards futures.

Gray goods are weak; buyers will place business only at bargain prices. Trade looks for some improvement after Labor Day.

CURTAILMENT NEED EMPHASIZED

Mill men are gradually becoming convinced of the need for further curtailment of print cloth output. The dull summer and the slow pick-up in fall commitments has left the industry with a substantial surplus. Some firms feel the need to clear, and are making concessions. There is considerable end-year and early-1931 business being placed at current low levels, which upsets the hope for a profitable winter turnover. One factor said he found growing sentiment for further curtailment and was hopeful that mills as a whole soon would see the need for action at that end. He said that if the trade curtailed drastically in September, surplus could be cut 30 to 40%.

Broadsilk Call Steady

All Orders Small and For Spot Shipment—Cantons Active

BROADSILK demand is steady, with a slight increase in interest among retailers. Both piece goods buyers and cutters are buying on strictly hand-to-mouth basis, and while orders picked up this week, it was not so much a matter of increased confidence as it was the refilling of incomplete lines. Manufacturers and stores both continue hesitant regarding fall prospects. The garment industry seems determined not to produce much in excess of actual orders, and cutters place absurdly small orders for fabrics—reordering the following week, if demand justifies it. Fabric weavers are encouraged by the even tone of the market, however, and look to September to bring further improvement.

CANTONS CONTINUE IMPORTANT

Cantons lead in current sales, the call being chiefly for brown and green shades. All orders are small and spot, and prices are moderately firm. Current levels do not allow for much profit margin, and even the small broadsilk mills are averse to offering concessions. There is little underselling.

Satins are in fair call, especially the browns and greens, as satins are being used together with cantons in current fashions. Metals are backward, but some improvement at this end is expected in September. Sheers are spotty; some mills report a call for georgettes, but others have difficulty in moving any of the lightweight fabrics.

Broadsilk stocks are moderate. Mills have been limiting production to slightly more than current orders, and they are enjoying a quick turnover.

◆Woolen and Worsted Prices Weaken

WOOLEN and worsted goods mills are developing a strong disposition to produce to order only, and there are indications that the current year will be notable for low inventories. Hesitant buying, with excessive price pressure has convinced numerous of the foremost fabric producers that producing for stock, even at the beginning of a season is bad business, and the output of spring lines will be held down very strictly, in conformance with this policy.

Current buying is spotty. There is considerable demand, all small orders, and for immediate shipment. Stocks in the hands of garment manufacturers are limited to actual needs, and no one wants to buy more than will be immediately used. The mills look for an improvement in September, but no sharp upcurve is expected. The whole vertical line—manufacturer, distributor and consumer—is buying hesitantly, and confidence regarding winter prospects is still a bit wavering. Weavers are discouraged by further price weakness, but their stock situation is considerably better than it has been. One foremost company expects to have its looms cleared of all fall dress goods by Oct. 15, and his may be representative of a good part of the industry.

The end-August demand stresses women's goods, with particular interest in snow-flake effects and fancy dots. Here, as elsewhere, reorders are small, though numerous, and the aggregate represents considerably less than normal.

Slight Softening In Burlap Futures

Burlap futures were slightly softer this week, but there was little real change in market tone. Calcutta future offerings were easy and weakened the New York market. Spot and afloat prices held fairly steady. Buying was light at all ends.

The 8 oz. 40s for August were 4.75; for two weeks and spot 4.65. The 10½ oz. 40s for August, two weeks and spot were all 6.05.

QUOTATIONS

at close of business, Aug. 27, 1930
Prices cover average qualities unless otherwise stated

Cotton Goods

	Aug. 27	Aug. 20	Aug. 28 1929
PRINT CLOTHS			
27 -in., 64x60, 7.60.	4c.	4 c.	5½c.
38½-in., 64x60, 5.35.	5c.	5–5⅛c.	7⅛c.
39 -in., 68x72, 4.75.	5⅛c.	5⅛c.	8⅛c.
39 -in., 72x76, 4.25.	6⅛c.	7¼–6⅛c.	9⅛c.
39 -in., 80x80, 4.00.	7c.	7⅛c.	10⅛c.
BROWN SHEETINGS			
36-in., 56x60, 4.00..	6⅛c.	6⅜–6⅛c.	8⅛c.
36-in., 48x48, 5.00..	7⅛c.	7⅛c.	10⅛c.
37-in., 48x48, 4.00..	5⅛c.	6 c.	8⅛c.
PAJAMA CHECKS			
36½-in., 72x80, 4.70.	6c.	6¼–6⅛c.	9 c.
36½-in., 64x60, 5.75.	4⅝–5c.	5⅛c.	7⅛c.
MISCELLANEOUS			
Drills, 37-in., 3 yd...	8 c.	8⅛c.	10¾c.
Denims, 2.20.....	12⅛c.	12⅛c.	17 c.
Tickings, 8 oz.....	17½–17⅛c.	17½–17⅛c.	22–23⅛c.
Standard prints.....	8 c.	8 c.	9⅛c.
Eastern staple ginghams, 27-in.....	10 c.	10 c.	10 c.

Cotton Waste

Peeler comber	9 — 9½
Peeler strips	8 — 8½
Sak. comber	8½ — 8⅝
Choice willowed fly	4½— 5½
Choice willowed picker	3 — 4½
Sak. strips	11 —11½
Linters (mill run)	2½— 3½
White spooler (single)	8 — 8½

Cotton Yarn

(Carded yarn quotations are nominal)

CARDED (Average Quality)

Double Carded 2c.–4c. higher, according to quality

SINGLE SKEINS OR TUBES (Warp Twist)

4s to 8s..	$0.20½	20s.....	$0.23
10s.....	.21 – .21½	24s.....	.25½– .26
12s.....	.21½– .22	26s.....	.26½– .27
14s.....	.22 – .22½	30s.....	– .28
16s.....	.22½– .23	40s ex.qual	.40 – .41

TWO-PLY SKEINS AND TUBES

8s-2.....	$0.21 – .21½	26s-2.....	$0.27
10s-2.....	.21½– .22	30s-2.....	– .28
12s-2.....	.22 – .22½	36s-2	.34 – .35
14s-2.....	– .22½	40s-2.....	.36 – .37
16s-2.....	– .23	40s-2 hi. blk.	.40 – .41
20s-2.....	.23 – .23½	50s-2.....	– .45
24s-2.....	– .26	60s-2.....	.53 – .54

SINGLE WARP

10s.....	$0.21½	24s.....	$0.25½– .26
12s.....	.21½– .22	26s.....	.26½– .27
14s.....	.22 – .22½	30s.....	.27½ .28
16s.....	– .22½	40s ex. qual.	– .41
20s.....	.23 – .23½		

TWO-PLY WARPS

8s-2.....	$0.21½	24s-2.....	$0.26½
10s-2.....	– .22	26s-2.....	– .27½
12s-2.....	– .22½	30s-2.....	.28 – .28½
14s-2.....	.22½– .23	40s-2 ordin.	.36½– .37
16s-2.....	– .23	50s-2.....	– .46
20s-2.....	.23 – .23½	60s-2.....	– .54

8s-3 and 4-ply skeins and tubes; tinged, 19-20; white, 22-23; waste 17½-18

HOSIERY CONES (Frame Spun)

8s.....	$0.20½– .21	22s.....	$0.25 – .25½
10s.....	– .21	24s.....	.26 – .26½
12s.....	– .21½	26s.....	.27 – .27½
14s.....	– .22	30s tying.	.28 – .28½
16s.....	– .22½	30s reg....	.29 – .29½
18s.....	– .23	30s ex. qual.	.31½ – .32
20s.....	– .23½	40s.....	.36 – .36½

COMBED PEELER—(Average Quality)

TWO-PLY—(Knitting Twist) Cones

20s-2....	$0.36 – .37	60s-2.....	$0.56 – .56½
30s-2.....	.41 – .42	70s-2.....	.65½– .66
36s-2.....	.42 – .43	80s-2.....	.78 – .79
40s-2.....	.44 – .45	90s-2.....	.92 – .95
50s-2.....	.49 – .50	100s-2....	1.15 –1.18

WARPS, SKEINS AND CONES

TWO-PLY—(Warp Twist)

20s-2....	$0.37 – .38	60s-2.....	$0.57 – .58½
30s-2.....	.42 – .43	70s-2.....	.66 – .67
36s-2.....	.43 – .44	80s-2.....	.78 – .80
40s-2.....	.45 – .46	90s-2.....	.97 – 1.00
50s-2.....	.50 – .51	100s-2....	1.20 – 1.25

SINGLES

12s.....	$0.29½– .30½	30s.....	$0.39½– .40
14s.....	.30 – .30½	38s.....	.42 – .42½
16s.....	.30½– .31	40s.....	.43 – .43½
18s.....	.31 – .31½	50s.....	.48½– .49
20s.....	.32 – .32½	60s.....	.55 – .55½
24s.....	.34½– .35	70s.....	.64 – .65
28s.....	.37 – .38	80s.....	.77 – .78

MERCERIZED CONES—(Combed, Ungassed)

26s-2.....	$0.52 – .53	90s-2.....	$1.31 – 1.33
30s-2.....	.54 – .55	100s-2.....	1.61 – 1.63
36s-2.....	.57 – .58	120s-2.....	2.01 – 2.04
40s-2.....	.60 – .61	30s.....	– .75
45s-2.....	.62 – .64	40s.....	– .80
50s-2.....	.64 – .66	50s.....	– .85
60s-2.....	.72 – .74	60s.....	– .90
70s-2.....	.84 – .86	70s.....	–1.05
80s-2.....	.96 –1.01	80s.....	–1.25

Cotton Prices and Statistics

COTTON STATISTICAL DATA

(Fluctuations of Futures)

	Closed Aug. 21	For Week—High	For Week—Low	Closed Aug. 27	Net Change
July.....	11.87	11.97	11.62	12.19	+0.32
August.....	11.06	11.14	11.02	.....	.....
September...	11.20	11.22	10.90	11.50	+0.30
October.....	11.34	11.40	11.08	11.64	+0.30
November...	11.39	11.45	11.23	11.73	+0.34
December....	11.45	11.60	11.05	11.83	+0.38
January.....	11.59	11.65	11.31	11.92	+0.33
February....	11.42	11.48	11.26	11.77	+0.35
March.....	11.52	11.61	11.27	11.85	+0.27
April.....	11.57	11.63	11.42	11.92	+0.35
May.....	11.68	11.75	11.45	12.02	+0.34
June.....	11.74	11.79	11.56	11.08	+0.34

SPOT FLUCTUATIONS FOR WEEK

(Middling)

	New York	New Orleans	Liverpool
Friday, Aug. 22.....	11.15	10.69	6.44
Saturday, Aug. 23...	11.25	10.72	6.48
Monday, Aug. 25....	11.45	10.90	6.41
Tuesday, Aug. 26...	11.75	11.18	6.57
Wednesday, Aug. 27	11.70	11.18	6.59
Thursday, Aug. 28..	11.70	11.18	6.67

SPOT FLUCTUATIONS AND STOCKS

Markets	Aug. 20	Aug. 27	Sales	Stocks This Week	Stocks Last Year
Galveston....	11.05	11.35	2,639	196,562	78,954
New Orleans	10.84	11.18	17,974	306,976	54,671
Mobile.....	10.35	10.65	647	10,466	10,149
Savannah...	10.37	10.84	14,962	139,050	42,671
Norfolk.....	11.19	11.63	2,821	44,470	19,580
New York...	11.35	11.70	.....	237,133	110,145
Augusta....	10.31	10.69	2,430	52,967	33,620
Memphis....	10.05	10.40	2,918	131,457	37,620
St. Louis...	10.25	10.50	.....	2,243	7,004
Houston....	10.95	11.35	47,857	610,057	161,430
Dallas.....	10.30	10.70	39,212	.....	.....

BASIS MIDDLING

	Saturday, August 23	Saturday, August 16
10 markets average....	10.31	10.78
Memphis.....	9.95	10.35

PREMIUM STAPLES

First Sales from Factors Tables at Memphis

Grade Strict Middling	Prices Nominal
1⅛-in.....	12.20—12.50c.
1 3/16-in.....	14.20—14.50c.
1¼-in.....	19.00—19.50c.

CURRENT SALES

	For Week	Prev. Week	Week Before
Memphis total.....	2,848	2,738	2,217
F.o.b. included in total...	2,832	2,714	2,037
10 markets.....	74,319	81,866	32,851

MEMPHIS RECEIPTS, SHIPMENTS, ETC.

	For Week	Last Year	Year Before
Net receipts.....	411	590	1,025
Gross receipts.....	5,914	4,586	2,996
Total since Aug. 1, net...	2,526	2,639	2,959
Shipments.....	7,047	6,460	6,574
Total since Aug. 1.....	31,944	27,056	33,997
Total stock.....	134,857	38,951	63,604
Decrease for week.....	3,163	1,874	3,578
Unsold stock in hands of Memphis factors.....	29,589	.....	.....
Increase for week.....	395	.....	.....

AVERAGE PRICE AUG.-SEPT. SHIPMENT HARD WESTERN COTTON

F. o. b. New England

	Middling	St. Middling
1 1/16 in.....	14 –14¼c.	14½–14¾c.
1⅛ in.....	14½–15 c.	15½–15¾c.
1 3/16 in.....	16½–17¼c.	17½–18¾c.
1¼ in.....	23 –24 c.	25 –26 c.

Basis on New York, New December, 11.60.

DIFFERENCES ON AND OFF MIDDLING

WHITE GRADES

	Dallas	Memphis	Montgomery	Augusta	Average
M.F.....	1.05†	1.00†	1.00†	1.00†	0.86†
S.G.M.....	.90†	.85†	.90†	.88†	.70†
G.M.....	.75†	.75†	.75†	.75†	.52†
S.M.....	.50†	.50†	.50†	.50†	.33†
S.L.M.....	.75*	.65*	.65*	.75*	.71*
L.M.....	1.75*	1.75*	1.50*	2.00*	1.73*
S.G.O.**....	3.00*	2.75*	2.50*	3.25*	2.88*
G.O.....	3.00*	2.75*	2.50*	3.25*	3.90*

YELLOW TINGED

G.M.....	0.50*	0.25*	0.50*	0.50*	0.58*
S.M.....	1.00*	.75*	1.00*	1.00*	1.05*
M.**.....	1.75*	1.25*	1.50*	1.50*	1.68*
S.L.M.....	2.50*	1.75*	2.25*	2.25*	2.40*
L.M.**.....	3.50*	2.25*	3.00*	3.00*	3.30*

YELLOW STAINED

G.M.....	1.50*	1.75*	1.50*	1.50*	1.58*
S.M.**.....	2.25*	2.50*	2.50*	2.50*	2.40*
M.**.....	3.00*	3.00*	3.50*	3.50*	3.23

BLUE STAINED

M.G.**.....	1.75*	1.50*	1.75*	1.75*	1.78*
S.M.**.....	2.25*	2.25*	2.75*	2.75*	2.50*
M.**.....	3.00*	2.75*	3.75*	3.75*	3.28*

**Grades not deliverable on contract. †On Middling *Off Middling.

EGYPTIAN COTTON

Alexandria Exchange, Aug. 20		Change
November Sak.....	20.17	+0.12
October uppers.....	13.44	+0.31

AUG.-SEPT. SHIPMENT c. i. f. BOSTON

(Tariff not included)	(Prices Nominal)
Fully good fair Sak.....	23.25
Fully good fair to good Uppers.....	16.50

(By Anderson, Clayton & Co.)

Wool

OHIO, PENNSYLVANIA AND WEST VIRGINIA (IN GREASE)

Fine delne	$0.31 –$0.31½	¾ blood	$0.29 –$0.30
Fine clthg	.23 – .24	½ blood	.30 – .31
¼ blood	.29 – .30		

TEXAS AND CALIFORNIA (CLEAN BASIS)

Texas, 12 months	$0.73 –$0.75
California, Northern	.65 – .68

PULLED—EASTERN (CLEAN BASIS)

AA	$0.77 –$0.80	B-Super	$0.55 –$0.60
A-Super	.65 – .68	C-Super	.50 – .55

MONTANA, IDAHO AND WYOMING (CLEAN BASIS)

Staple fine	$0.75 –$0.78
Staple ¾ bld	.70 – .73
Fine and fine medium	.70 – .72
½ blood	.60 – .63
¼ blood	.57 – .60

MOHAIR—DOMESTIC

Best Carding	$0.38 –$0.40
Best combing	.53 – .55

MOHAIR FOREIGN (IN BOND)

Turkey fair, average	$0.28 –$0.30
Cape firsts	.28 – .30

FOREIGN CLOTHING AND COMBING (CLEAN BASIS IN BOND)

Australia:	
70s	$0.65 –$0.70
64s	.53 – .55
58s-60s	.46 – .48
(IN GREASE)	
Montevideo:	
58-60s	$0.25 –$0.26
56s	.25 – .26
50s	.23 – .24
Buenos Aires:	
4s, 40-44s	$0.22 –$0.23
5s, 36-40s	.20 – .21

FOREIGN CARPET (GREASE BASIS IN BOND) SCOURED

Aleppo	$0.30 –$0.31
China: Combing No. 1	.16 – .17
China Filling Fleece	.14 – .15
Szechuen ass't	.15
Cordova	.15 – .16
Scotch black face	.20 – .21
East India: Kandahar	.23 – .24
Vican'r	.27 – .28
Joria	.27 – .29

Worsted Yarns

ENGLISH SYSTEM WEAVING

2-20s, 36s	$0.92½–$0.95
2-24s, 40s	1.02½– 1.05
2-26s, 44s	1.10 – 1.12½
2-28s, 46s	1.15 – 1.17½
2-30s, 48s	1.20 – 1.22½
2-32s, 50s	1.25 – 1.27½
(Single yarns 5c. less than above)	
2-36s, 58s	$1.35 –$1.40
2-40s, 60s	1.45 – 1.47½
2-40s, 64s	1.50 – 1.52½
2-50s, 66s	1.65 – 1.70
2-60s, 70s	2.15 – 2.20

ENGLISH SYSTEM KNITTING

2-20s, 44s in oil	$0.95
2-20s, 48s in oil	1.02½
2-20s, 50s in oil	1.07½
2-20s, 56s in oil	1.17½
2-20s, 60s in oil	1.32½
2-20s, 64s in oil	1.37½ 1.40
1-15s, 46s dyed	1.15 – 1.17½
1-15s, 48s dyed	1.17½– 1.20
1-15s, 50s dyed	1.20 – 1.22½
(Oil yarns 17½c. less)	

FRENCH SYSTEM

1-20s, 58s	$1.20 –$1.22½
1-20s, 60s	1.25 – 1.27½
1-18s, 64s, Dyed	1.52½– 1.55
1-26s, 64s	1.27½– 1.30
1-30s, 60s, Warp	1.40 – 1.42½
1-30s, 64s, Warp	1.42½– 1.45
2-30s, 64s, Fancy mixes	1.70 – 1.72½
2-40s, 64s, Zephyrs	1.60 – 1.65
1-50s, 66s	1.62½– 1.65
2-50s, 66s	1.80 – 1.82½
1-60s, 70s	1.95 – 2.00
2-60s, 70s	2.10 – 2.15

FRENCH SPUN MERINO WHITE

1-30s, 50-50-58s on cops	$1.05 –$1.07½
1-40s, 50-50-60s on cops	1.20 – 1.25
1-40s, 50-50-64s on cops	1.22½– 1.25
1-40s, 50-50-64s Australian cops	1.25 – 1.30

Underwear mixes, 3c. additional.
Solid color, 35c. additional.

◆

Tops and Noils

TOPS—BOSTON

Fine (64-66s)	$0.97 –$0.99
Half-blood (60-62s)	.88 – .92
High ¾ blood (58s)	.83 – .85
Aver. ¾ blood (56s)	.80 – .83
Low ¾ blood	.73 – .78
High ½ blood (50s)	.70 – .72
46s S. A. and N. Z.	.65 – .66
44s S. A and N. Z.	.62 – .65
40s S. A and N. Z.	.58 – .60

TOPS—BRADFORD, ENG. (AUG. 22)

Fine (70s)	31½d	¾ bld. (56s)	20 d
Fine (64s)	28 d	½ bld. (50s)	17 d
¾ bld. (60s)	26 d	Cross-bred (46s)	15 d
¾ bld. low (58s)	22½d		

NOILS—BOSTON

Fine	$0.57–$0.60	High ½ bld.	$0.44–$0.47
Half-bld	.53– .55	Low noils	.40– .42
Aver. ¾ bld.	.45– .48	Medium colored	.40– .42
Fine colored	.46– .48		

Wool Substitutes

WOOL WASTE

Lap, fine white	$0.80 –$0.83
Lap, fine colored	.58 – .60
Hard ends, fine white	.60 – .63
Hard ends, ½ blood white	.40 – .43
Hard ends, fine colored	.28 – .30
Hard ends, medium colored	.23 – .25
Card, fine White	.30 – .33
Burr, fine Carbonizing	.38 – .40

OLD WOOLEN RAGS (GRADED FOR MFRS.)

Merinos, Coarse Light	$0.06 –$0.07
Merinos, Fine Dark	.04½– .05
Merinos, Fine Light	.14 – .14½
Serges, Blue	.07½– .08
Serges, Black	.07 – .08
Serges, Red	.11 – .11½
Knit, White	.29 – .30
Knit, Red	.15 – .16
Knit, Light Hoods	.14 – .15
Worsted, Light	.05½– .06
Worsted, Blue	.07½– .08
Worsted, Black	.07½– .08

Silk Yarns

THROWN SILK (60 day basis)

	Nominal
Japan organzine, 2 thd. grand XX in skeins	$4.40
Japan organzine, 2 thd. sp. crack in skeins	4.25
Japan crepe, 3 thd. grand XX in bobbins	4.60
Japan crepe, 3 thd. sp. crack on bobbins	4.30
Japan crepe, 4 thd. crack on bobbins	4.05
Canton crepe, 3 & 4 thd. ns. 14/16 on bobbins	2.70
Tussah tram, 2 end on cops	2.00
Hosiery tram, 3 thd. Japan XXX	4.95
Hosiery tram, 4 thd. Japan, selec. gd. XX	4.45
Hosiery tram, sp. crack XX	3.70
Hosiery tram, crack XX	3.60
Hosiery tram, XX	3.35

SPUN SILK YARNS—(Terms: net 30)

40/2	$3.65	60/2	$4.00
50/2	3.85	62/1	2.80

Raw Silk

(60 day basis)
Prices Nominal

	13/15 White	20/22 White	20/22 Yellow
Super Grand, 86/88%	$3.80	$3.15	$3.00
Special Grand, 85%	3.60	3.05	2.90
Grand XX, 83%	3.30	2.95	2.80
Special Crack, 81%	3.10	2.85	2.75
Crack XX, 78%	2.95	2.80	2.70
Extra Extra, 73%	2.90	2.75	2.65
Best Extra, 68%	2.80	....	....

Canton filature, new style, 141/6	$2.10
Canton filature, new style, 20/22	2.05
Tussah filature, 8 cocoon	1.75

NATIONAL RAW SILK EXCHANGE

	Closed Aug. 20	For the Week High	For the Week Low	Close Aug. 26	Net Chge.
August	2.91	3.01	2.84	.....	.....
September	2.80	2.80	2.70	2.86	+ .06
October	2.76	2.80	2.71	2.80	+ .04
November	2.80	2.80	2.72	2.78	— .02
December	2.76	2.80	2.71	2.76	.....
January	2.76	2.80	2.71	2.77	+ .01
February	2.76	2.80	2.71	2.77	+ .01
March	2.76	2.80	2.71	2.76	.....
April	.....	2.78	2.76	2.77	.....

Aug. 20 to Aug. 26—Total contracts, 194. Total number of bales, 1,940. Total approximate value, $679,000.

Domestic Rayon

VISCOSE PROCESS

Denier	Filament	First	Second
50	14	$2.15	$1.95
75	18	1.60	1.50
75	30	1.70	1.60
100	18	1.25	1.15
100	40	1.30	1.20
125	36–50	1.20	1.10
150	24–30	.95	.90
150	36–40	1.00	.95
150	60	1.15	1.10
150	75 90	1.20	1.15
170	24–27	.95	.90
170	60	1.15	1.10
200	30	.90	.85
200	35–40	.90	.85
200	75–80	1.10	1.05
300	44–60	.78	.75
450	54–60	.78	.75
600	72–96	.78	.75
900	100–144	.78	.75

NITRO-CELLULOSE PROCESS

Denier	First Qual.	Second Qual.	Denier	First Qual.	Second Qual.
75	$1.60	$1.50	150	$0.95	$0.90
100	1.25	1.15	175	.95	.90
125	1.20	1.10			

CUPRAMMONIUM PROCESS

Denier	Filament	Price	Denier	Filament	Price
15	25	$3.10	40	30	$2.40
25	25	2.85	52	30	2.20
30	25	2.60			

(Due to diversified offerings prices for higher denier are not listed here.)

ACETATE PROCESS

Denier	Price	Denier	Price
45	$2.75	120	$1.90
55	2.55	150	1.60–1.85
75	2.25–2.70	200	1.55
100	2.00–2.45	300	1.50

Rayon Waste

Prices Nominal

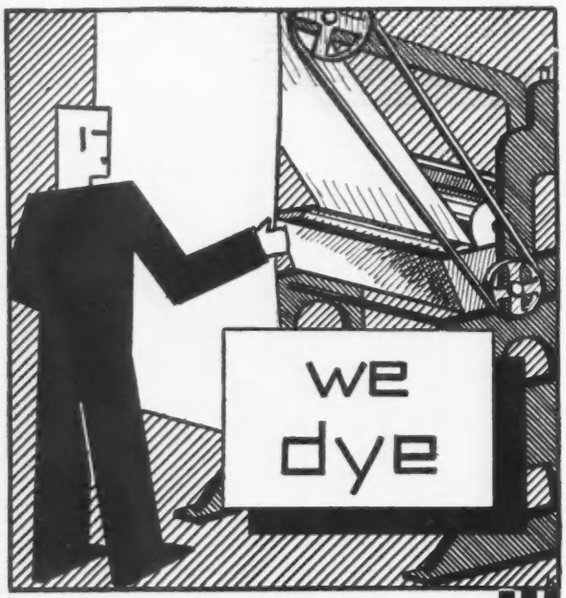
Open bleached waste	–$0.16
Open unbleached waste	– .15
Bleached thread waste (mfs.)	– .11
Bleached thread waste (misc.)	– .10
Colored thread waste	.06– .08
Colored clips	– .06

CONVERTED RAYON WASTE

Bleached tops	–$0.47½
Unbleached tops	– .42½
Bleached noils	– .15
Bleached garnets	– .13
Unbleached garnets	– .13
Colored garnets	– .10

Silk Waste

Kibizzo Kikai Grand XX	$0.85
Kibizzo Kikai Triple Extra	.92
Frison Grand Double	.90
Pierced Cocoons	1.12



FAST BLUE SALT BB•
FAST BLUE SALT RR•

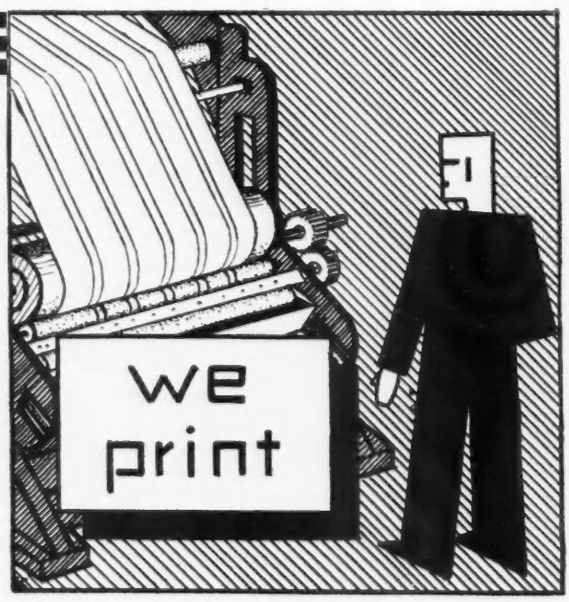
THE newest additions to the G·D·C· Fast Color Salt series of distinct advantage to dyers and printers who demand—

fastness to light
fastness to washing
fastness to chlorine

GDC

GENERAL DYESTUFF CORPORATION

230 FIFTH AVENUE
NEW YORK, N. Y.



Southern Mill Securities

(A. M. Law & Co., Spartanburg)

	Bid	Asked
Abbeville Cotton Mills	..	50
Anderson Cotton Mills	64	70
Arcade Cotton Mills	..	60
Arcadia Mills	..	225
Arcadia Mills, pfd	93	98
Arkwright Mills	..	50
Augusta Factory, Ga	..	20
Avondale Mills, Ala	750	1000
Beaumont Mfg. Co	250	300
Beaumont Mfg. Co. 7% pfd	100	102
Belton Mills	..	25
Belton Mills, pfd	..	75
Bibb Mfg. Co	95	100
Bibb Mfg. Co. 6% pfd	99	102
Brandon Corp., A	..	45
Brandon Corp., B	..	7
Brandon Corp., pfd	..	84
Calhoun Mills	88	95
Chadwick-Hoskins Co. (par, $25)	9	12
Chesnee Mills	..	60
Chiquola Mfg. Co	250	260
Chiquola Mfg. Co., pfd	88	92
Clifton Mfg. Co	97	99
Clinton Cotton Mills	225	250
Columbus Mfg. Co., Ga	80	90
Cowpens Mills	..	30
D. E. Converse Co	90	94
Dallas Mfg. Co., Ala	..	50
Darlington Mfg. Co	40	50
Drayton Mills	110	..
Dunean Mills	115	125
Dunean Mills, pfd	95	100
Eagle & Phenix Mills, Ga	..	65
Easley Cotton Mills, pfd	..	47
Enterprise Mfg. Co., Ga	..	100
Fairforest Finishing Co., serial notes	98	100
Florence Mills	45	50
Florence Mills, pfd	97	100
Gaffney Mfg. Co	..	25
Gainesville Cotton Mills, Ga	130	150
Glenwood Mills	85	95
Gluck Mills	65	71
Gossett Mills	..	60
Graniteville Mfg. Co	..	100
Greenwood Cotton Mills	400	..
Grendel Mills, pfd. (par, $50)	45	48
Hamrick Mills	..	90
Hartsville Cotton Mills	130	140
Hunter Mfg. & Com. Co., pfd	83	85
Industrial Cotton Mills Co., pfd	..	30
Inman Mills	115	125
Inman Mills, pfd	100	..
Judson Mills, A, pfd	97	99
Judson Mills, B, pfd	95	98
King, John P. Mfg. Co., Ga	80	90
Lancaster Cotton Mills	250	270
Laurens Cotton Mills	..	120
Limestone Cotton Mills	..	100
Lydia Cotton Mills, serial notes	99	101
Marion Mfg. Co., N. C.	..	113
Marlboro Mills	..	15
Mills Mill, pfd	95	99
Mollohon Mfg. Co., pfd	97	100
Monarch Mills	105	113
Musgrove Cotton Mills	30	35
Newberry Cotton Mills	100	105
Ninety-Six Mills	400	..
Norris Cotton Mills	..	40
Orr Cotton Mills	..	60
Orr Cotton Mills, pfd	..	83
Pacolet Mfg. Co	..	130
Pacolet Mfg. Co., pfd	95	100
Pancla Cotton Mills, Class A, pfd. (par, $60)	55	60
Pickens Cotton Mills	105	115
Piedmont Mfg. Co	95	100
Piedmont Print Works (no par)	15	20
Piedmont Print Works, pfd	60	70
Poe, F. W. Mfg. Co	24	29
Riverside & Dan River Mills	10½	11½
Riverside & Dan River Mills, 6% pfd	71	76
Saxon Mills	..	65
Sibley Mfg. Co., Ga	50	60
Southern Bleachery	16	20
Southern Bleachery, Pfd	80	85
Southern Bleachery, serial notes	95	100
Southern Franklin Process	19	22
Southern Franklin Process, pfd	98	101
Southern Worsted Corp., pfd	88	92
Spartan Mills	..	135
Spencer Corp., serial notes	98	100
Union-Buffalo Mills	..	45
Union-Buffalo Mills, 1st pfd	82	85
Union-Buffalo Mills, 2nd pfd	43	46
Victor-Monaghan Co	..	65
Victor-Monaghan Co., pfd	..	111
Wallace Mfg. Co	..	105
Ware Shoals Mfg. Co	125	140
Whitney Mfg. Co	..	40
Woodside Cotton Mills Co	..	40
Woodside Cotton Mills Co., pfd	..	42
Yarns Corp. of America, gold bonds	99	101

Textiles on N. Y. Exchanges

The following shows the movements of the leading textile stocks listed on the New York Stock Exchange and Curb for the week ended Aug. 27:

	High	Low	Last	Change
Adams Millis	27½	27½	27½	+ 1¼
*American Thread, pfd	3½	3½	3½	
American Woolen	11½	10½	11½	+ 1
American Woolen, pfd	27½	26½	27½	—
*Assoc. Rayon, pfd	51½	49	51½	+ 3½
Belding-Hemingway	4	3¾	3¾	
Cannon Mills	21½	21	21	+
Century Ribbon	4¾	4¾	4½	—
Collins & Aikman	22	21	21½	—
Consolidated Textile	7	7	7	
*Fabrics Finishing	2½	2½	2¼	—
Gotham Hosiery	10½	10½	10	—
Industrial Rayon	83	83	83	— 2
Kayser, Julius	23¾	23	23¾	
Mallison	7	7	7	—
*May Hosiery, pfd	27	25	27	+ 3½
Mohawk Carpet	18½	18	18½	+ 2½
Munsingwear	38¾	38½	38¾	—
Pacific Mills	22	21½	22	+ 1½
*Pepperell	83¼	83	83	+ 1½
*Powdrell & Alexander	39	38½	39	— 1
*Propper-McCallum	7½	7½	7½	+
Real Silk Hosiery	39¾	38½	38½	+
*Tubize	7	7	7	
United Piece Dye Works	25½	24¾	25½	+ ¼

*Listed on Curb.

Fall River Mill Stocks

(G. M. Haffards & Co., Fall River)

	Bid	Asked
Algonquin Printing Co	310	330
Barnard Mfg. Co	..	10
Berkshire (com.)	8	11
Berkshire (pfd.)	..	60
Bourne Mills	5	10
Border City Mfg. Co	..	5
Charlton Mills	..	50
Cornell Mills	..	10
Davol Mills	..	5
Davis Mills	5	9
Flint Mills	18	..
King Philip Mills	5	..
Laurel Lake Mills (com.)	..	8
Lincoln Mfg. Co	..	10
Merchants Mfg. Co	27	..
Narragansett Mills	..	10
Pilgrim Mills	..	60
Richard Borden Mfg. Co	2	..
Sagamore Mfg. Co	..	60
Shove Mills	..	6
Stafford Mills	..	1
Stevens Mfg. Co	27	..
Union Cotton Mfg. Co	24	..
Weetamoe Mills	..	1

N. Carolina Mill Stocks

(R. S. Dickson & Co., Charlotte, N. C.)

	Bid	Ask
Acme Spinning Co	60	75
American Yarn and Processing Co	..	71
Chadwick-Hoskins Co. (Par. $25)	7	10
Chadwick-Hoskins Co., 8%, Pfd	94	99
China Grove Cotton Mills	90	100
Climax Spinning Co	55	65
Clover Mills	..	26
Converse D. E. Co	85	91
Crescent Spinning Co	50	61
Dixon Mills	90	100
Durham Hosiery, 6%, Pfd	30	35
Eagle Yarn Mills	55	65
Efird Mfg. Co	65	80
Erwin Cotton Mills	..	115
Erwin Cotton Mills Co., 6%, Pfd	90	97
Flint Mfg. Co	..	81
Flint Mfg. Co., 7%, Pfd	90	98
Globe Yarn Mills (N.C.)	..	18
Gray Mfg. Co	..	76
Hanes, P. H. Knitting Co	7	10½
Hanes, P. H. Knitting Co., 7%, Pfd.	..	98
Henrietta Mills, 7%, Pfd	40	55
Imperial Yarn Mills	..	60
Linford Mills	60	71
Locke Cotton Mills Co	40	55
Majestic Mfg. Co	100	135
Mansfield Mills	..	65
Mooresville Cotton Mills	3	7
Mooresville Cotton Mills, 7%, Pfd	..	81
Myers Mills	..	71
Myrtle Mills	..	51
National Yarn Mill	50	60
Perfection Spinning Co	54	66
Ranlo Mfg. Co	..	115
Ranlo Mfg. Co., 7%, Pfd	..	98
Roanoke Mills	60	..
Roanoke Mills, 1st Pfd., 7½%	82	95
Roanoke Mills, 2nd Pfd., 8%	82	95
Rosemary Mfg. Co., Pfd., 7½%	94	..
Rowan Cotton Mills Co	67	80
Seminole Cotton Mills Co	..	75
Sterling Spinning Co	60	75
Stowe Spinning Co	54	66
Victory Yarn Mills Co	35	50
Ware Shoals Mfg. Co	115	130
Ware Shoals Mfg. Co., 7%, Pfd	92	98
Winget Yarn Mills Co	38	50
Wiscassett Mills Co	155	180

New England Textile Stocks

Quotations at "Public Sale" are based on last sales at Boston Public Auctions and Boston Stock Exchange. Bid and Asked prices are latest quotations of dealers.

	Public Sale	Bid	Asked
Am. Mfg. pfd	60	60	64
Amoskeag	11	..	..
Arlington	23½	23	25
Associated Textile	36½	34	37
Bates	63	63	67
Berkshire Associates, com	9	9	11
Berkshire Associates, pfd	55	55	59
Bigelow-Sanford, com	52	..	..
Boott Mills	120½	105	115
Edwards	80½	67	72
Esmond, pfd	102	100	102
Farr Alpaca	69½	67	70
Hamilton Woolen	40	39	41
Hill	18	14	18
Indian Orchard	20½	20	25
Ludlow	136	136	140
Merrimack, com	50½	44	50
Nashua, com	22	22	25
Nashua, pfd	68	66	69
Naumkeag	88	83	86
Newmarket	25½	15	21
Otis	49½	41	45
Pacific	22	..	..
Pepperell	86	84	86
Plymouth Cordage	82	69	71
York	8⅛	7	7½

New Bedford Mill Stocks

(Sanford & Kelley, New Bedford)

	Bid	Asked
Acushnet Mill	5½	7½
Beacon Mfg., con	125	..
Beacon Mfg., pfd	85	87
Booth Mfg. Co., com	6	8
Booth Mfg. Co., pfd	30	..
Bristol Mfg. Co	..	28
City Mfg. Co	38	41
Dartmouth Mfg. Co., com	48	52
Dartmouth Mfg. Co., pfd	85	..
Gosnold Mill., com	13	14½
Gosnold Mill, pfd	..	44
Grinnell Mfg. Co	20	22
Hathaway Mfg. Co	32½	34
Holmes Mfg. Co., com	1	3
Holmes Mfg. Co., pfd	8	..
Kilburn Mill	36	37½
Nashawena Mills	19	20
N.B. Cotton Mills, pfd	10	12½
Neild Mill	31	35
Nonquitt Mills	4½	5½
Pierce Mill	115	120
Potomska Mills	29	31
Quissett Mills, com	51	53
Soule Mill	50*	..
Taber Mill	9½	10½
Wamsutta Mills	12	13½
Whitman Mills	⅜	1½
Gosnold Mill Notes	..	90
Whitman Mills 6% Notes	38	..

* Ex-dividend.

Textile Calendar

Paterson Silk Institute Discussion Meeting, Chamber of Commerce, Paterson, N. J., Sept. 18, 1930.

Worsted Yarn Spinners' Annual Outing, Manufacturers' Country Club, Oreland, Pa., Sept. 24, 1930.

Spinners' Division, Southern Textile Association, regular meeting, Charlotte, N. C., Sept. 26, 1930.

National Safety Congress, Textile Section, Annual Meeting, William Penn Hotel, Pittsburgh, Pa., Sept. 30-Oct. 1, 1930.

Master Mechanics' Division, Southern Textile Association, regular meeting, Greensboro, N. C., Oct. 3, 1930.

National Association of Cotton Manufacturers, Annual Meeting, Poland Springs, Me., Oct. 10-11, 1930.

Ninth Southern Textile Exposition, Textile Hall, Greenville, S. C., Oct. 20-25, 1930.

Textile Division, A.S.M.E., National Meeting, Poinsett Hotel, Greenville, S. C., Oct. 22, 1930.

Southern Textile Association, Semi-Annual Meeting, Poinsett Hotel, Greenville, S. C., Oct. 23, 1930.

United States Institute for Textile Research, First Annual Meeting, New York City, Nov. 6, 1930.

Ninth National Exposition of Power and Mechanical Engineering, Grand Central Palace, New York City, Dec. 1 to 6, 1930.

? How much is "too much grease" in scoured wool ?

Most mill men frankly admit that scouring which leaves too much of the natural grease in wool is responsible for many troubles occurring later in processing operations.

Excess grease affects spinning properties, causes gummy deposits on cards and rubbing aprons, tends to make sliver become sticky and uneven, causes yarn weights to vary. Frequently the dyer has a hard job applying the light shades so popular at present, because too much grease is left in the yarn.

But how much *is* "too much grease"?

It's a problem to know just how much residual grease should be left in the wool; to know just how far scouring should be carried. "Over-scouring" is as dangerous as under-scouring. It tends to leave the fibre harsh, dry and brittle.

Careful experiments on wool scouring conducted in our Textile Research Department laboratories have brought out this interesting fact. For maximum safety and satisfactory processing, a residual grease content not to exceed 1% is most advantageous and safe. This figure assures really clean wool in all respects and it can be maintained uniformly and economically.

The importance of uniform scouring, because of its bearing on the processes which follow, is too well recognized to need further comment. It stands to reason that this can only be accomplished by using a soap which is uniform in quality.

A soap particularly well suited to handle this important processing step is Olive Olate Flakes. Here is a flaked soap of uniform quality with a titre lower than any other textile soap and with a wider margin of safety.

It will pay you to learn the many advantages of Olive Olate. Ask your Procter & Gamble salesman about it.

Procter & Gamble **Cincinnati, Ohio**

GOOD SOAP IS GOOD BUSINESS

1929 Census on Textile Machinery Production Shows Gain

The Bureau of the Census announces that, according to data collected in the Census of Manufactures taken in 1930, the total value of products made in 1929 by establishments engaged primarily in the manufacture of textile machinery and parts amounted to $118,297,016, an increase of 1.2% as compared with $116,921,130 reported for 1927, the last preceding census year. The total for 1929 is made up as follows: Fiber-to-fabric machinery, valued at $19,659,160; fabric machinery, $29,242,612; machinery for bleaching, dyeing, printing, mercerizing, finishing, etc., stock, yarn, and cloth, $8,143,626; other textile machinery, $7,048,244; extra parts, attachments, and accessories for textile machinery, $42,125,016; other products and amount received for repair work, $12,078,358.

The statistics for 1929 are summarized in Table 1 herewith, with comparative figures for 1927. Detailed product statistics are given in Table 2. The figures for 1929 are preliminary and subject to revision.

TABLE 1—SUMMARY FOR INDUSTRY: 1929 AND 1927

	1929	1927	Per Cent of Increase or Decrease—
Number of establishments	372	367	1.4
Wage earners (average for the year) [1]	26,229	26,154	0.3
Wages	$36,663,154	$36,481,196	0.5
Cost of materials, fuel, and purchased electric current	$35,789,213	$36,180,689[2]	—1.1
Products, total value	$118,297,016	$116,921,130	1.2
Textile machinery and parts	$106,218,658	$100,922,791	5.
Other products and amount received for repair work	$12,078,358	$15,998,339	—24.5
Value added by manufacture: Total	$82,507,803	$80,740,441	2.2
Per wage earner	3,145	3,087	1.9
Ratio (per cent) of cost of materials, etc., to value of products	30.3	30.9	....

[1] Not including salaried employees.

[2] The cost of mill supplies was included in the cost of materials for 1929 but not in the corresponding figure for 1927. For this reason, these two items are not strictly comparable.

Schedule Divisional Meetings Of S.T.A.

Two divisional meetings to be held within the next several weeks are being planned at the executive offices of the Southern Textile Association, at Charlotte, N. C., according to Walter C. Taylor, secretary of the organization. The first of these is a meeting of the spinners' group, which will be held in Charlotte on Sept. 26, and the master mechanics' division will meet in Greensboro, N. C., on Oct. 3.

Viscose and DuPont Will Not Guarantee Prices

Speculation regarding the possibility of a rayon price guarantee was set at rest, partially at least, Wednesday, when two leading producing companies announced that they would not guarantee prices. George O. Hamlin, sales manager of the Viscose Co., said:

"We will not guarantee rayon prices in any way. The Viscose Co. believes there is no need for such action. A guarantee would be absurd; no such guarantee is offered in any other of the primary markets, and there is no reason why the rayon industry should offer one. Business tone is improving slowly and we look for a healthy fall demand."

Leonard A. Yerkes, president of Du Pont Rayon Co., stated:

"There has been a great deal of agitation in certain parts of the trade and in the trade press on the question of guaranteeing the price of rayon yarn.

"Du Pont Rayon Co. wishes to announce that we have not made any guarantee of prices and, furthermore, will not make any.

"We believe that the practice is unsound and could only lead to innumerable future misunderstandings and dissensions. The prices of rayon have been liquidated to the point where confidence and stability should ensue."

Tubize-Chatillon Survey Sees Price Cut Remote

Improvement in the rayon industry in the last two weeks has reduced the likelihood of a price cut, according to the September issue of "Textile Economist," the business survey issued by Tubize-Chatillon Corp. Commenting on current conditions and outlook for rayon, this publication observes:

"The long-time outlook for rayon is excellent. The price of rayon at present level is thoroughly compatible with, if not relatively below, prices of other major textile fibers. What rayon users want is stability and not lower prices. They want to feel sure that the price at which they get their yarn is the same as that at which other users in like categories get theirs and that such prices remain stable for some definite time before they make commitments.

"We do not believe a price cut is anywhere near as much of a possibility as it was two weeks ago. Producers have seen that price cuts under existing circumstances do not increase sales, the price of rayon is now in a strong bargaining position with the other fibers, sales to cotton weavers and underwear knitters especially have picked up very well in the last week, and the seasonal increase in most lines of the textile industry will undoubtedly make its belated appearance immediately after Labor Day. These factors will tend to alleviate a large part of the strained atmosphere of the past few months in the rayon field."

TABLE 2.—TEXTILE MACHINERY AND PARTS—PRODUCTION, BY CLASS, NUMBER, AND VALUE: 1929 AND 1927

Class	1929 Number	1929 Value	1927 Number	1927 Value
Textile machinery and parts made in all industries, total value	.....	[1]	.....	$102,199,860
Made in the textile machinery and parts industry, value	.....	$106,218,658	.....	100,922,791
Made as secondary products in other industries, value	.....	[1]	.....	1,277,069
Fiber-to-fabric machinery, total value	.....	$19,659,160	.....	$22,015,037
Picker	$1,433	$1,228,047	$2,555	$2,307,454
Carding	2,069	2,484,338	.....	3,615,213
Combing and drawing frames [2]	2,568	717,936	2,937	750,895
Roving	551	923,038	1,051	1,570,815
Spinning	3,325	3,427,182	3,093	3,453,461
Doubling and twisting	2,078	3,159,209	1,644	2,262,775
Winders—skein, spool, bobbin, quill, cone, etc.	.....	4,879,167	.....	5,979,913
Beaming, warping and slashing	769	575,959	.....	.....
Beaming, warping, and slashing, value only, number not reported by manufacturers	.....	2,264,284	.....	2,074,511
Fabric machinery, total value	.....	29,242,612	.....	26,730,440
Looms for weaving, except carpet and rug	$18,784	$9,036,922	$27,729	$11,469,788
Looms for weaving carpet and rug	493	602,328	384	135,134
Knitting machines	.....	18,504,642	.....	14,266,883
Braiding machines	6,547	956,337	5,638	768,950
Other fabric machines, including lace and net, embroidery, and cordage and rope	.....	142,382	.....	89,685
Machinery for bleaching, dyeing, printing, mercerizing, finishing, etc., stock, yarn, and cloth	.....	8,143,626	.....	7,643,731
Other textile machinery	.....	7,048,244	.....	5,819,664
Extra parts, attachments, and accessories for textile machinery	.....	42,125,016	.....	39,990,988

[1] Data not yet available. Complete figures will be given in the final report.

[2] Combined in order to avoid disclosing output of individual establishments.

Fleeces From Other Backs. I—Mohair

(*Continued from page 25*)

smaller quantity of formic acid. It is necessary sometimes to give a slight soaping after dyeing in order to remove any tendency towards bronzing.

If the cotton has been previously dyed with substantive colors, the wool should be cross-dyed in an acid bath to which has been added some aluminum salt to replace the glauber salt used in the method described previously. For example, the bath may contain 10% of acetic acid (or 3% formic acid) and 5% of alum. The temperature of the bath should not be raised to the boil if it can be avoided; and the work should be done with the material at its full width. When the tinting is completed, cold water should be allowed to flow through the bath until the goods have cooled down when they should be well rinsed. After drying, it is necessary to

test for fastness to rubbing; and if this is not satisfactory, the batch must be after treated. A suitable after-treatment is as follows: A bath is made with sufficient glue dissolved in the water to make it just tacky when a drop is touched between the thumb and finger, and enough silicate of soda is added to give an alkaline reaction to litmus paper. The batch is worked in this, cold, for 20 min., rinsed well, run through a dilute acid bath, hydroextracted, and dried.

If the cotton is dyed with a color fast to acid, there is little trouble in dyeing mohair with acid dyestuffs, provided that the dyebath is strongly acid in order to preserve the luster of the fiber. The ordinary practice for woolens is followed, but at a rather lower temperature. Here again the dextrine solution will be found useful. After treating with the dextrine, the plush should then be dried, steamed for a full hour, washed thoroughly in the washing machine, hydroextracted, and then finally dried.

July Rayon Imports

Imports of rayon yarns, waste, staple fiber and filaments into the United States during July, 1930, as reported by the Department of Commerce follow:

	Pounds	Dollars
Yarns		
France	13,442	13,753
Germany	49,495	46,784
Italy	54,361	37,666
Netherlands	4,620	3,805
Poland and Danzig	2,205	2,050
Switzerland	5,500	4,333
United Kingdom	220	274
Canada	2,310	1,497
	132,153	109,862
Spun Yarns		
Switzerland	12,858	6,998
United Kingdom	107	93
	12,965	7,091
Filaments		
Germany	441	457
Waste		
Germany	2,445	441
Canada	11,025	642
	13,470	1,083
Cut or Staple Fiber		
Germany	3,789	1,491
United Kingdom	628	391
	4,417	1,882

Novel African Treatment In New Safari Prints

The African theme is given several new interpretations in the Safari prints for the coming season, just announced by Belding Heminway Co., New York. Two patterns, suitable for pajamas and sport, offer striking novelties both in color and design; one shows an African native's shield, in maroon against a black background, surrounded by spearheads; the other shows a motley of heads and spears in gay greens and yellows.

Cellulose Official Surveys European Markets

An improvement in the rayon situation in France and at least a temporary settlement of Great Britain's duty policies on rayon are features of the European market observed by P. B. Stull, general manager of the Virginia Cellulose department, Hercules Powder Co., recently returned from an extended trip abroad.

"The vacillating policy of the present British government on protective duties," stated Mr. Stull, "has created uncertainties in the cellulose industries as in other lines, but a definite import duty on rayon now appears to be well established. In France a recent price increase in rayon testifies to the improved conditions in that trade."

"Yarn of the Week" as distributed by Indian Orchard (Mass.) Co. in its new merchandising plan for its fancy yarns, as described in these columns last week

Color Card Association Adds Eight New Winter Colors

Advance swatches of the eight colors which will be portrayed on the supplementary winter card will be sent to members next week, it was announced by Margaret Hayden Rorke, managing director of the Textile Color Card Association. The new colors will be shown on both silk and wool and feature deep tonal effects.

The card will reflect certain new color notes in fashion and show as well shades stressed at the Paris openings. It was explained by Mrs. Rorke that these shades supplement, but in no way detract, from the style importance of colors already appearing in the 1930 fall season cards.

National Power Show to Be Held Dec. 1 to 6

Under the leadership of I. E. Moultrop, chairman, preliminary details of the Ninth National Exposition of Power and Mechanical Engineering to be held Dec. 1 to 6, in Grand Central Palace, New York City, are well under way. It has been stated by the committee in charge that already the problem of finding space to fit in new exhibitors who are planning to come in, is a real one; and the Grand Central Palace will be crowded.

Army To Buy Uniform Cloth

Army Quartermaster, Philadelphia, will open bids Sept. 19, 1930, to supply them with 2,000 yd., barathea cloth, 16 oz., 56 to 58 in. wide conforming with specifications 8-64; 1,000 yd., Bedford cord, 25½ to 26 ozs., 56 to 57 in. wide; 2,000 yd., elastique, 15 to 16 oz., 56 to 58 in. wide, specifications 8-67; 5,000 yd., gabardine, 12½ to 13 oz., 56 to 57 in., specifications 8-63 and 5,000 yd., whipcord, 16 to 17 oz., 56 to 58 in. wide, conforming with specifications 8-55A.

New List Issued on Ivory Sheets and Sheetings

Parker, Wilder & Co., New York, on Aug. 20 revised prices on Ivory wide sheetings made by Naumkeag Steam Cotton Co., to basis of 39c. for 9/4 bleached, a drop of 5c. from previous list. The sheets and pillow cases are on a basis of $13.87 per dozen for the size 81x99 bleached sheets and $3.39 per dozen for the size 45x36 bleached pillow cases, the reduction being $1.65 and 36c. respectively.

To Represent Pfingst in South

W. F. Hall, Jr., Statesville, N. C., has become associated with Geo. B. Pfingst, Inc., Philadelphia, silk yarns, and will cover the entire southern territory for this firm. Mr. Hall has previously been identified with Charlotte (N. C.) Knitting Mills and Statesville (N. C.) Knitting Mills and is familiar with requirements of knitters using silk yarns.

Institute of Laundering to Dedicate New Building

The American Institute of Laundering, Inc., Joliet, Ill., will dedicate its new building with formal exercises to be held Sept. 16. The organization, sponsored by the Laundry Owners National Association, was established in 1922. Its purpose is to develop and perfect the art of laundering in all its phases through practical application of scientific research.

L. I. Rosenbolz in New Offices

L. I. Rosenbolz, selling agent for Kayser silk jersey fabrics of Julius Kayser & Co., removed to new offices located at 220 Fifth Ave., New York City, on Aug. 23.

Reifsnyder Selling Cleveland Noils

PHILADELPHIA.—I. Reifsnyder & Son Co., has been appointed selling agent for the noils and wastes of the Cleveland Worsted Mills, one of the largest producers of noils.

Business News

Westinghouse Creates Sales Service Department

Creation of a new section to be known as the sales service section has been announced by M. C. Morrow, domestic appliance sales manager of the Westinghouse Electric & Mfg. Co., Mansfield, Ohio. W. W. McFadden, who for many years supervised similar activities in the range section, is manager of the new section.

The functions of this section are to supervise and investigate all complaints, the return of material to the Mansfield, Ohio, plant, the servicing of returned material, the issuing of price sheet supplements, the compiling of renewal parts catalogs and the creation of service manuals.

The section will be responsible for these activities for the range, appliance, commercial cooking and water heater sections. The fan and vacuum cleaner sections in East Springfield, Mass., are also to be included.

Union Carbide & Carbon Corp. Building Power Plant in W. Va.

Construction work is now under way on new hydro-electric and steam electric power plant developments of subsidiary companies of Union Carbide & Carbon Corp., in the vicinity of Hawks Nest, Gauley Junction and Boncar, West Virginia. The total installed capacity of the two plants will be about 200,000 hp. Power output will be utilized by the proposed industrial plant of Electro Metallurgical Co. at Boncar.

The hydro-electric power development is being built by New-Kanawha Power Co. It will consist of a dam across New River, an intake, a power tunnel, surge tank, steel penstocks and power house.

Cork Insert Co. Removes Boston Office to New Location

The Boston office of the Cork Insert Co., manufacturers of "Cork Insert" (trade mark) pulleys, ready-to-use rings, slasher tensions, quiller washers and brake facings, has been moved from 176 Federal Street, to a new office which the company has built at its manufacturing plant at 155 Liverpool Street, East Boston, Mass.

Miss Emma J. Lang (who in private life is Mrs. Lester A. Avery) who has been connected with the company for the last 19 years will continue as treasurer, manager and clerk of the company.

German Rayon Machinery Maker on Visit to New York

Alexander Zangs, affiliated with the Maschinenfabrik Carl Zangs A. G., Krefeld, Germany, manufacturer of weaving and rayon machinery, arrived on the S.S. "Volendam" to acquaint himself with American manufacturing methods and to establish new connections for his firm. Mr. Zangs is making his headquarters with J. J. Krehbiel Co., 381 Fourth Avenue, New York.

Worthington Pump Improves Financial Status

In addition to maintaining good earning power, the Worthington Pump & Machinery Corp., Harrison, N. J., further improved its financial status during the first half of the year.

As of June 30, current assets were $17,525,690 against current liabilities of $1,225,722. Cash, call loans and government security holdings alone aggregated $6,920,560 and were 465 per cent in excess of total liabilities. As of the same date, inventories totaled $5,662,733; reserves, $1,674,920; and surplus $5,701,103.

The first half net of this year was equal to $4.31 a share on the 126,921 shares of $100 par common stock outstanding, compared with $4.57 a share on 129,921 shares of common issued in the first half of 1929.

E. A. Rykenboer Elected to Board of R. & H. Chemical Co.

At a meeting of the board of directors of the Roessler & Hasslacher Chemical Co., New York, on Aug. 25, Dr. Edward A. Rykenboer was elected a member of the board, replacing George F. Hasslacher, who resigned as director and assistant secretary on July 28. Dr. Rykenboer is 41 years of age, a graduate of the University of Rochester 1912. In 1917 he joined the Roessler & Hasslacher forces at Niagara Falls as a research chemist and from that position became superintendent of production and is now general superintendent of the Niagara Falls plant.

At the same meeting J. Carlisle Swaim was elected assistant secretary. Mr. Swaim is a lawyer and since 1928 resident counsel of the company.

R. C. Lee Elected to Directorate of Ohmer Fare Register Co.

At the meeting of the board of directors of the Ohmer Fare Register Co., Dayton, Ohio, Aug. 22, Robert C. Lee of the Guardian Trust Co. of Cleveland was elected a director to fill a vacancy on the board. Other directors are John F. Ohmer, H. B. Ohmer, John P. Breen, John S. McIntire and H. W. Baker of Dayton; Freeman C. Allen of Rochester, New York; F. J. Lisman of New York City and John F. Ohmer of Los Angeles.

Universal Winding Co. to Erect New Paint Shop

The Universal Winding Co., Auburn, R. I., closed bids Monday for a paint shop unit. From private plans a one-story brick structure will be built 50x80 feet.

Obituary

Gentaro Shimura

Gentaro Shimura, president of the Raw Silk Association of Japan, died in Yokohama, Japan, Aug. 26. Mr. Shimura was a vice-president of the Second International Technical Raw Silk Conference which was held here last fall, and acted as host to the American Technical Committee on the occasion of the latter's visit in 1928. He was prominent also in international grading conferences here and in the Far East.

E. L. Shuford

E. L. Shuford, aged 67, pioneer manufacturer of Hickory, N. C., died Aug. 21. He was formerly president and general manager of the E. L. Shuford Mfg. Co., and at the time of his death was connected with the Magnolia Knitting Co. He is survived by his wife, two sons and three daughters.

James T. Barnett

James T. Barnett, aged 78, treasurer of the Gate City Cotton Mills, College Park, Ga., and connected with that company for 28 years, died at his home at 653 Barnett Street, N. E., Atlanta, Ga. He is survived by his wife and three sons and a daughter. Mr. Barnett was born in Fairburn, Ga., and had moved to Atlanta 46 years ago.

John T. Gormly

John T. Gormly, for many years president of the firm of R. W. Gormly & Co., Troy, N. Y., died last week after a brief illness. The firm was regarded as one of the leading producers of knitting machinery in the State.

David Jennings, Jr.

David Jennings, Jr., son of David Jennings, of Chester, S. C., former president of the Aragon-Baldwin Cotton Mills, Inc., group, with plants in Rock Hill, Whitmire, and Chester, S. C., died last week in a hospital in New York, aged 21 years.

A. L. Crissman

A. L. Crissman, aged 57 years, died suddenly last week at his home. For more than 18 years he was employed by the Dakotah Mills, Lexington, N. C., and at the time of his death was machinist, electrician and had charge of the repair department of the mills. He is survived by his widow and one daughter.

Joseph H. Wallin

Joseph H. Wallin died recently in Amsterdam, N. Y., following a brief illness. For many years he was a boss designer at the McCleary, Wallin & Crouse plant at Amsterdam, but recently retired.

Textile Patents

COTTON cleaner and feeder. 1,773,016. Roy Walter Swope, Columbus, Ga. Assigned to Cen-Tennial Cotton Gin Co., Columbus, Ga.

CURVILINEAR elastic fabric. 1,772,955. John V. Moore, Pawtucket, R. I. Assigned to Moore Fabric Co., Pawtucket, R. I.

CURVILINEAR elastic fabric, Method of making. 1,772,956. John V. Moore, Pawtucket, R. I. Assigned to Moore Fabric Co., Pawtucket, R. I.

CURVILINEAR elastic fabric, Production of narrow. 1,772,945. Charles T. Hawley, Holden, Mass. Assigned to Moore Fabric Co., Pawtucket, R. I.

ELASTIC fabric, Mechanism and method for producing. 1,772,957. John V. Moore, Pawtucket, R. I. Assigned to Moore Fabric Co., Pawtucket, R. I.

ELASTIC fabric, Method of producing. 1,772,958, John V. Moore, Pawtucket, R. I. Assigned to Moore Fabric Co., Pawtucket, R. I.

FABRIC. 1,772,458. Harry I. Diamond, Atlanta, Ga.

HOSIERY, Packing. 1,772,633. Edward V. Oehler, Milwaukee, Wis. Assigned to Phoenix Hosiery Co., Milwaukee, Wis.

KNITTING-needle holder. 1,772,666. Minnie Housh, Galesburg, Ill.

LOOMS, Warp stop motion for. 1,772,757. Jonas Northrop, Hopedale, Mass. Assigned to Standard Looms, Inc., Spartanburg, S. C.

NEEDLE weft-inserting loom. 1,772,973. Frank Walters, Kidderminster, England.

PICKER stick parallel motion. 1,772,808. Elder N. Hatcher, Manchester, Ga.

SHUTTLE eye. 1,772,446. Harold Fred Adams, Providence, R. I. Assigned to U. S. Bobbin & Shuttle Co., Providence, R. I.

SHUTTLE tension. 1,772,449. Luther C. Baldwin, Providence, R. I. Assigned to U. S. Bobbin & Shuttle Co., Providence, R. I.

SPINNING, doubling, twisting and the like, yarns, fibers and the like, Machine for. 1,772,766. Thomas Edwin Andrew and Melon Langstreth, Rochdale, England. Assigned to Dunlop Cotton Mills, Ltd., London, England.